

[Reprinted from the *Publications of the University of Pennsylvania, Series in Philology and Literature*, volume 9, number 2.]

PALATAL DIPHTHONGIZATION OF STEM VOWELS IN THE OLD ENGLISH DIALECTS

A Dissertation submitted to the Board of University Studies
of the Johns Hopkins University in conformity with
the requirements for the degree of
Doctor of Philosophy

BY

CLARENCE G. CHILD

Assistant Professor of English, University of Pennsylvania

PHILADELPHIA

1903

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SYMBOLS.

The letters representing the series of guttural and palatal sounds in the texts are represented by the letters *c*, *sc*, *g*.

The surd guttural stop is denoted as a sound by the symbol *k*. When necessary, its affection to spirantal quality in the course of palatalization is specially indicated by use of the symbol *χ*. The palatal sound developed from it is expressed by the symbol *ċ*.

The combination *sk* denotes *s* + surd guttural stop; *sχ*, *s* + surd guttural spirant; *sċ*, *s* + palatal aspirant. The unitary palatal sound (approximately modern English *sh* in *shoe*; see p. 29) which developed from *sχ* is denoted by the symbol *sċ*.

The sonant guttural spirant is represented by *g*, the palatal sound developed from it by *ġ*.

The palatal semi-vowel is represented by *j*.

When necessary, the stressed element in a diphthong is indicated by printing the symbol in Roman: e. g., *ġeaf*, *ġeâra*.

LIFE.

I was born in Newport, R. I., in 1864, and was prepared for college at St. John's House in that city, by my father, the Rev. W. S. Child, M. A., S. T. D. I received the degree of B. A. from Trinity College, Hartford, in 1886, and of M. A. in 1891. During 1885-86 and 1888-90, I served as tutor in the family of Mr. T. M. Carnegie, in 1887-88 as teacher in St. John's House, and in 1890-91 as instructor in English and Mathematics in Trinity College. The following year, 1890-91, I began my studies for the doctorate at the University of Munich, and concluded them during 1892-95 at the Johns Hopkins University, where I was Scholar in English in 1893-94, and Fellow in English in 1894-95, receiving the degree of Ph. D. in 1895.

I desire to acknowledge special indebtedness to Professor Charles F. Johnson, of Trinity College, to Professors Breymann and Koeppele of the University of Munich, and to Professors James W. Bright, William Hand Browne, Herbert Evelyn Greene, Henry Wood, and Marion D. Learned, of the Johns Hopkins University. I also wish to express my deep sense of what I owe, since my graduation, in the way of counsel and instruction, to Professor F. E. Schelling, of the University of Pennsylvania, and Dr. C. P. G. Scott, of the editorial force of the new edition of Worcester's Dictionary.

PREFACE.

The following notes upon palatal diphthongization of stem-vowels in Anglo-Saxon were originally included in a thesis offered to the Faculty of Philosophy of the Johns Hopkins University in 1895, in partial fulfillment of the requirements for the doctorate. They remain unchanged except in detail, and except for the inclusion of results contained in articles published since that date, especially the notable series by Bülbring in the *Anglia Beiblatt*, together with his general exposition in his *Elementarbuch*.

The original plan comprehended a detailed study of palatal diphthongization in the several dialects, with a careful effort to avoid the prejudice, no less real because often unconscious, occasioned by too great deference to conditions in West Saxon, as if it possessed a right to be regarded as representing, in some sense, a norm for the whole speech. The importance of maintaining the parity of the several dialects in studies of this character, even while the special importance of West Saxon is conceded, need not be emphasized. Attention has repeatedly been called to it, for example by Sievers, and it has recently found recognition in a most marked way in Bülbring's *Elementarbuch*. The original plan, as essentially correct, however faulty the manner of its execution, remains accordingly unchanged. The testimony of the several dialects has been studied in typical texts, and necessarily in those of which grammars exist, in order that information might be obtained in regard to general conditions without the necessity of searching for special examples.

Effort has not been directed toward finding new examples, so much as toward substantiating a general explanation. The available material has already been pretty thoroughly canvassed. It should also be pointed out that the subject is definitely limited to palatal diphthongization of stem-vowels, and does not include the whole subject of palatalization of initial consonants.

The conditions under which palatal diphthongization took place are still far from being clearly understood, and various associated questions still await an answer. No one can have a more poignant sense of the perplexities these involve than one who has attempted their explanation and solution. To refrain from adventuring novel explanations, however, when dealing with difficult questions, whether because evidence is meagre, or because current opinion is contravened, or, in brief, through timidity in regard to probable adverse criticism for any reason, can hardly fail to result in deferring their successful solution. If the present attempt to deal with a most difficult (and most interesting) chapter of Anglo-Saxon phonology has the good fortune to occasion further ventilation of the subject, though itself riddled for the purpose, it will not prove labor lost.

I desire to express my sincere thanks to Dr. James W. Bright, of the Johns Hopkins University, whose approval of my choice of subject has been followed by frequent and helpful advice. I acknowledge with pleasure my indebtedness to the authors of the various works I have used, and especially to Professor Bülbring. I feel myself under much obligation to the University of Pennsylvania, by whose permission this paper is admitted into the University Series.

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I.

INITIAL PALATAL DIPHTHONGIZATION.

The question by what process palatal diphthongization (as in **cæf* > *ceaf*, **gêfon* > *gêafon*, **gefan* > *giefan*, *scomu* > *sceomu*, **jung* > *geong*, etc.) was effected is closely bound up with the question whether the resulting diphthong was a falling or a rising diphthong (*ea* or *ea*, etc.). Cases in which a diphthong is produced by insertion of a glide before a guttural may be set aside; the diphthong in this case must necessarily have been a rising diphthong. The point of chief importance is in regard to diphthongs from palatal vowels. These, clearly, in the historic period, were falling diphthongs. For a convenient summary of the evidence, with further contributions, see Bülbring, *Anglia Beiblatt*, 11, 97.¹

Was this indubitable falling diphthong original, or did it result from a shift of accent in an original rising diphthong? The latter is the general view. Bülbring, for example, speaks in the article just quoted of evidence "für accentverschiebung bei den aus palatalen vokalen hervorgegangenen diphthongen" (p. 103), and in formulas of transition, proposed for argument, supposes (pp. 97 f.) **cêsi* to pass to **ceêsi* parallel with **jêr* to *jeêr*, both with rising diphthongs.

¹ In brief: (1) Similarity of behavior of all *ea*'s, *êa*'s, *ie*'s and *ie*'s after palatal consonants, as regards monophthongization, no matter how they originated (Sievers, *Beiträge*, 9, 204); (2) especially, further, the uniformity of development of *ie*'s and *ie*'s of different origin to short and long *i*, *y*; (3) texts which have *ie* have *i* (*y*) but never *e*; (4) *ie* appears as a scribal error or peculiarity for *i*, not for *e*; (5) accents in the Aelfredian manuscripts appear on the first element; (6) in late West Saxon, *ie* and *ie* become short and long *i*, *y*, not *e*, *ê*; (7) *giefol* and *ongiotan* (in Aelfred) by *u-o* umlaut from *ie* or *i* attest a falling diphthong before the period of *u-o* umlaut.

This view or assumption seems incorrect. The problem involved is in what way an original guttural *k*, *sk*, *g* (*sc* and *j* will be considered later) so affected a following palatal *æ*, *ê*, or *e*, as to produce *ea*, *êa*, and *ie* respectively. The development is due, apparently, to two causes—a difference of quality between the consonant and the vowel in the first place, and sensitiveness to palatal affection on the part of the consonant in the second place. Two steps in the development may accordingly be conjectured: first, insistence upon the palatal quality of the vowel in distinction from the preceding guttural consonant caused it to assume diphthongal form with level stress; second, the consonant became palatal and effected a closer union in articulation with the first element, 'heightening' it to a closer approximation with its own point of articulation and causing it to become more strongly stressed, with the result that a falling diphthong is produced. The development may be represented, for example, as **kæf* > **kææf* > **kææf* > **kææf* > **kæaf* (written *ceaf*); **ged* > **geed* > **geed* > **gied* (written *gied*).

This seems the most probable development. To suppose **kæf* > **kææf* with guttural *k* and a glide *æ* of palatal quality equivalent to that of the stem-vowel is impossible. If we suppose **kæf* > **kæf* > **kææf*, we have to suppose a glide of 'lower' palatal quality than the stem-vowel, later to become one of 'higher' palatal quality, with the further and very real difficulty that the diphthong is a rising diphthong. If again we suppose **kæf* > **kææf* > **kææf* > **kææf* > **kææf* > **kæaf* (written *ceaf*), we have again a rising diphthong to be converted into a falling diphthong, and similar introduction of a guttural glide cannot in any case be posited in the case of the change of *e* to *ie*.

Two difficulties are apparent in these explanations. One is that of conjecturing the period at which the consonant becomes palatal, considered with respect to its ability to

produce diphthongization. If, for example, it is argued that $*kæf > *kæf > *kæf$, the e would be a glide of higher palatal grade than the vowel that palatalized the consonant which introduced it. The consonant, also, must have assumed a degree of palatal quality higher than that of the vowel that palatalized it. Such a view has, or has had, its supporters. Brenner (*Beiträge*, 20, 555) in criticizing Bremer (*Indogermanische Forschungen*, 4, 25) remarks, "Wenn $ɜ$ palatal ist, dann braucht es doch noch nicht dem palatalen $æ$ sympathisch zu sein. Im wests. ist nämlich, als a palatal geworden war, das vorausgehende $ɜ$ auch palatal geworden, aber noch über die $æ$ -stelle vorgeückt; war nun die bewegung zwischen $ɜ$ und $æ$ hörbar geworden, so ist es erklärlich, wenn der gehörte übergangslaut als e oder i in der schrift zum ausdruck kam. Der neue laut—ich will ihn kurz vorlaut nennen—ist eingetreten, nicht weil $æ$ palatal war, sondern weil es für $ɜ$ zu wenig palatal war. Ebenso steht es mit dem i in *ziefan*." This, it must be confessed, seems an *ad hoc* explanation. The mechanics of the change involves gradual assimilation of consonant to vowel such as may produce stability, not an affection of such character as to produce new conditions of instability of a reverse kind.

The second difficulty in these tentative explanations is that they lead necessarily to the assumption of an original rising diphthong with no apparent reason forthcoming for subsequent change of stress. The incidental difficulty presented by the character of the vowels assumed to be glides, or to have developed from glides, is also apparent. This view in regard to the diphthong is not only erroneous, but has been productive of further error. Sweet (*Trans. Phil. Soc.* Feb. 2, 1883) once argued, for example, that the initial g is a stop, because we can understand $*gaad$ becoming $*gjaad$, but not $*jaad$ becoming $*jjaad$ —except on paper. The error is in part involved in regarding j as

properly representing the value of the palatal spirant $\hat{g}$, and is in part due to the belief then prevalent, that the diphthong caused by palatalization, even in all historic forms, must be regarded as a rising one.

The explanation first offered avoids these difficulties. The consonant remains guttural until after $a > \text{æ}$, is gradually palatalized, and causes approximation of the first element of the level-stressed diphthong $\text{æ}\text{æ}$ to e , dissimilation subsequently changing the second element to a . The combination ee similarly becomes ie . The result in each case is a falling diphthong.

Confirmation of this explanation is afforded by recorded conditions in the case of e . In Northumbrian e is undiphthongized at a time when the diphthongization of æ is under way, and even in West Saxon there is some evidence of its having been diphthongized later than the æ . According to the prevailing view, there would be no more difficulty in the development of a diphthong out of e than out of æ ; indeed, it might be supposed that the stronger palatal e would palatalize the g more quickly and so lead to earlier introduction of the 'glide.' But this is not the testimony of the record. On the other hand, according to the explanation suggested, the more nearly homorganic e necessarily retained its integrity longer—the form **geelpān*, for example, persisting for an extended period before the first element of the intermediate stage ee was adapted in height from e to i . Adaptation in the case of the æ took place sooner as being more necessary, the inequality in height between the point of articulation of the consonant and that of the æ being greater than between that of the consonant and that of the e , and the 'moment' of change accordingly greater.

In the case of j , conditions wholly different appear, although j is usually regarded as if the same reasoning applied to it as to k , g , and as if the examples in which it

appears could be quoted beside those with *k, g*. The difference is absolute, in that the *j* was from the first a palatal, and not a palatal developed from a guttural. The nature and process of the changes it produced were consequently wholly different from those produced by *k̂, ĝ*. As a result of the palatalization of *k, g*, a following *æ, e* assumed the form *ea, ie*; but this, be it noted, was incidental to the process explained above, not a further development after the *k, g*, had been fully palatalized. In the case of *j*, when followed by a palatal, there was no similar hostile dissimilarity, and therefore affection of the vowel was only a remote possibility; exception need not be made, perhaps, even of the *æ* (the question turning on the development of West Saxon *gêar* beside Anglian *gêr*). Before gutturals, however, the *j* introduced a mediatory glide, the resulting diphthongs being necessarily rising diphthongs, later only in rare cases becoming falling diphthongs. The affection due to *j* must, therefore, be kept strictly apart from that due to *k̂, ĝ*. The latter exhibits marked dialectal variations; the former is common Anglo-Saxon and consistent in its development in the several dialects. The fact that in certain dialects diphthongization of palatal vowels does not occur, or is rare, is no criterion in regard to *j* before guttural vowels. The absence of diphthongization of palatal vowels is due to the fact that the sounds represented by *c, g* were not sufficiently palatal to effect it—but the *j* is by nature palatal, and diphthongization of guttural vowels necessarily took place. Therefore Bülbring is not justified, when expressing his belief that the *e* after *g* is sometimes a mere diacritic, sometimes a true diphthongal element (*Elementarbuch*, § 297), in the statement, “Diphthongierung . . . ist . . . am unwahrscheinlichsten in Texten, welche die palatalen Vokale gänzlich oder teilweise undiphthongiert erhalten.”

The *j* is usually expressed by *g*, followed in cases with

a guttural stem-vowel by *e*, *i*. The detail in regard to the occurrence of this *e*, *i*, is best treated in connection with the examples in the various texts. The view of Bülbring that the *e* or *i* is sometimes a diacritic does not seem necessary; it can always be shown to be a true diphthongal element. The mistaken supposition that diphthongization after *j* is not to be credited, if *ġ* and *ǣ* in a text do not effect diphthongization, leads directly to such a view, as well as the conception, generally entertained, that initial *i* in native words, in place of the usual *ǣ*, merely means *j*. This conception needs special attention. It seems incorrect for the following reasons:

1. The *i*-spelling and *ǣ*-spelling are discriminated initially. Where *ǣe* and *ǣi* are not used, *i* is used. But if *ǣe*, *ǣi* represent a diphthongal element, *iū* and *io* must also represent a diphthongal element.

2. The *i*-spelling is confined to cases with a following guttural. Why, if the *i* merely represents original *j*, is it not used with palatals?

3. The *i* is almost exclusively used before *u*—practically always, except in *Rushworth*¹, where use of the *i* is a mannerism of the scribe. This can only be because *i* is the appropriate glide before *u*.

4. The spelling *iong*, *ioc*, must be held to attest a diphthong *io*, *iō* and to represent a middle stage between the original *iū*, *iū* and the frequently recorded *eo* with the *g*-symbol. See further under the discussion of the Anglian forms of *geong*.

5. The form *iwocc* (*Ritual*, 109, 16) for *geoc* indicates a partition of a true diphthong with insertion of a *w* in the hiatus.

6. *Rushworth*¹ has numerous cases of *gearw*- (< *garw*-) spelled *iarw*-. If *i* represents simply a palatal spirant, why should it appear in a position where by assumption original guttural *a* is retained? See the fuller discussion later.

For these reasons, the *i* initial must be regarded as equivalent to *gi*, that is, it represents the palatal spirant together with a diphthongal glide or possibly, in some cases, stressed diphthongal element.

In addition to these sounds, a special value of *sc* is to be noted. The *sk*, as such, stands on the same plane as *k*, *g*. It develops, however, also to a higher grade of palatalization, *skʲ*, not simply as a result of position before a palatal vowel, but because of the phonetic nature of the combination. The details in regard to this development are reserved, for convenience, till they can be taken up in connection with the examples.

II.

NORTHUMBRIAN.

The texts considered are the *Durham Ritual* (Lindelöf: *Die Sprache des Rituals von Durham*, Helsingfors, 1890), and the *Lindisfarne Gloss* (Lea: "The language of the Northumbrian gloss to the gospel of St. Mark," *Anglia*, 1893, 16: 62-134, 135-206, with a brief survey of Fücksel, "Die Sprache der northumbrischen Interlinearversion zum Johannesevangelium," *Anglia*, 1902, 24: 1-99; Cook's *Glossary* has also been used for reference.)

The examples, cited by section from the monographs, are listed with incidental comment and with detailed treatment following.

I. THE DURHAM RITUAL.

A remains in a few cases, for special reasons, unchanged: in *ongann* before the nasal (§ 1, 2); in *cald*, *calf*, *galga*, before *l* + cons. (§§ 1, 21; 9, 1, 2); and in the loan-words *calic* (§ 1, 5) and *stancarr* (§ 9, 1, a). These cases are without significance for the present inquiry. *A* preceded by *sc* is treated below. *A* changing to *æ* in closed syllables (§ 3) or by umlaut (§ 12, 1, b) remains undiphthongized in the following cases: *begætt*; *ascæccenum* (beside *asceæccen*, noted § 13, 2, a); *ascæpen*; *gæt(t)o* (*portas*), *gættana*; *giscaeft* (36 cases beside *gesceæft*, noted § 13, 2, a), *scæft*; *giscaep*, *giscaepþ'es*; *ongægn* (4 cases); *scæp(p)end*, *sceþþend* (beside *sceþ(p)end* (2), *scieþþend* (1), *scippend* (1): see §§ 12, 1, a, b; 13, 2, a).

E from *a* by umlaut (§ 12, 1, a) appears in *sceþþa*, *sceþ(p)end* (beside *scæpend*, etc., as above).

The secondary palatal *e* from *a* before *n* by *i*-umlaut

(§ 12, I, *a*) remains without diphthongization: *ceumpum*; *ancend*; *gende* (*frenans*).¹

Similarly the *e* by umlaut from *ea* by breaking before *r* (§ 12, I, *c*, *β*): *gicerra*, *ymbcerra*; *gigervap*, *gigeride*; *gigerela*, *gigerila*.

In *-geard* (§ 9, I, 1, *δ*), the diphthong is due to breaking.

The cases of *ea* from *æ* referable, or apparently referable, to palatal affection (§ 13, 2, *a*) are as follows: *ceaster* (6 cases); *-geadr* (7 cases with *geaprun*); *sceall* (beside *scal*, noted § 9, I, 2, *a*); *asceæccen*. *Bryd scean* (*thoro*), an anomalous form, probably a corruption of, or, as Lindelöf says, a scribal error for, *sceomul* (*sceamol*), should be classed with the cases of *sc* before guttural vowels. These cases are treated in detail below.

In the case of *e* (§ 13, 2, *c*), there is no diphthongization. Certain forms of *gefa*—*gife*, *gifende*, *forgif*—beside numerous cases with *e* of this and other words, call for comment. Parallelism with West Saxon *i* from *ie* cannot of course be assumed, as Dieter (§ 27) properly notes in connection with *gibaen* in the *Epinal Gloss*. In speaking of the occurrence of forms with *i* beside forms with *e* in Anglo-Saxon and in Middle English, Bülbring (*Anglia Beiblatt*, 11, 101, note 1) cites Brate's explanation of the *i* as due to levelling from the 2d and 3d persons (*Beiträge*, 10, 23), Luick's reference of it to the influence of *niman* (*Untersuchung zur englische Lautgeschichte*, pp. 302 f.) and Björkman's suggestion that it is due (in the Anglian) to influence of East Scandinavian *giva* with *i* from the 2d and 3d persons (*Scandinavian Loan-Words in Middle English*, pp. 154 ff.), concluding with a reference to Holt-hausen's explanation of the Low German *i*-form through palatalization of older *e* (*Die Soester Mundart*, 1886, p.

¹ A wholly obscure form, probably due to scribal error—Dr. C. P. G. Scott suggests to me that it is a remnant of *bridligende*, a simple and felicitous explanation.

69) and an expression of doubt whether the parallel form, suggested by Holthausen, Dutch *gisteren*, Low German *gistern*, can with propriety be adduced, as this may be regarded as a case of umlaut of *e* before *st*. Bülbring concludes, "Aber trotz alle dem ist noch rätselhaft, warum das *i* gerade im stamme *3ëb-*, *3ib-* an so vielen orten das *ë* verdrängte." The problem is certainly one of special interest. The occurrence of forms with both *e* and *i* in both the North and South precludes assumption of special dialectal influence, and the prevalence of the two forms immediately beside one another (with *e* and with *i*), together with the fact (noted by Bülbring) that in the *Ritual*, the glosses of *Ms. Harl. 3376* (Wright-Wülker, *Vocabularies*, I, 192-247), the *Blickling Homilies*, and in *Ælfric*, the noun also appears with *i* (*gifn*, *gife*, *forġifnis*, *-nes*), affords presumptive evidence against a transfer of the *i* from West Germanic *i*-forms. Presumably levelling from the 2d and 3d person is the chief explanation (Bülbring accepts it in his *Elementarbuch*, § 306, note 3), though it is difficult to see why there is not at least some evidence of a similar levelling in *geta*. Because of the noun-forms, this explanation is not completely satisfactory. These, however, may also have been affected by *gift*, if, as is possible, its range of senses and use was wider than the record shows, an assumption for which its wide-spread use in Middle English would seem to afford some evidence.

Comment upon the other short vowels (e. g. the *e* from *o*) is unnecessary. No cases of diphthongization or heightening due to an initial palatal appear. The examples of *sc* before guttural vowels, are given below under a separate heading.

Diphthongization does not occur with *æ* from *ā* by umlaut (§ 16): *gæstlic*; *gæt* (*capres*); *gæp* (and other forms of *gân* with *æ*). The form *geæp* referred to by Lindelöf among the examples with short *æ* (§ 13, 2, a), is not due

to palatal influence. The *eæ* possibly represents *ææ*, namely *æ*, paralleling the *aa* in *bigaap*, *bigaas*, etc. (§ 55, 4). *Gigiep* is presumably, as Lindelöf says, a scribal error. Both forms, *geæp*, *gigiep*, strongly suggest hiatus, as if the word had been made to conform with the preterit *gieade*.

Ê (Goth. *ē*, W. G. *a*) is not diphthongized in *ongêton*, *ongêtton* (§ 17, 1). For West Saxon *scêap*, the *Ritual* has *scîp* (§ 13, 2, *b*).

Incidental reference may be made to the form *geonga*, *gionga*, etc. (see § 13, 3), not due as Lindelöf says to diphthongization of the guttural vowel, but either to influence of the preterit, or to ecthipsis and contraction in *gigongan* (see Bülbring, *Elementarbuch*, 492, note 1).

The examples of diphthongization of guttural vowels after *sc* are as follows (§ 13, 2, 3):

ea from *a*: *sceape*.

eā from *ā*: *gisceādas*, *gisceādest*; *sceān*, *gisceān*.

eo from *o*: *sceoma*; *sceondlic*; and the anomalous *bryd scean*' (*thoro*), presumably, as Lindelöf suggests, for *sceomul*.

eô from *ô*: *sceôh*; *gisceô*; *gisceôp* (7).

The examples of diphthongization after original *j* (in the spellings *i* and *gi*) are as follows (§§ 13, 1; 17, 1; 29).

i: *iocce* (*jugo*), beside *iwocc*, and in proper nouns.

gi: *giungo*; *gigop*; *gigophad*; *gieondfær* (*inlustra*); *gie* (pron.); *gie* (adv.).

g: *j* appears before *ê* without a glide in *gêr* and derivatives.

2. LINDISFARNE MARK.

A (§§ 1, 5; 11, 1) remains in *calic*; *camel*; *carcern*; *carre*.

The *æ* from *a* in closed syllables (§ 3, 1, 2) is undiphthongized in *agæf* (beside *-geaf*, *geæf*); *ongæt*, *-gætt*, (4 cases beside one of *ongeat*); *gæt*; *ongægn*, *ongaegn*,

*togægn*es (beside *-geaegn*, 4 cases); *scaeftes* (beside *sceaft*, *sceæftes*). Also *ea*, *e* due to *i*-umlaut (§ 23): *sceppap*; *cempo*; *cennise*; *acenda* (*nata*). Also *æ*, *e* *ea* by umlaut of the breaking (§ 25): *gecerde*, *cærrende*, *gecærred*; *gegerelo*; *gerelad*; *gerd*.

The cases of *ea* from *a* referable, or apparently referable, to palatal affection are as follows (§ 29.1): *geaſel*; *ætgeadre* (4); *gegeadrad*; *-geaſ*, *-geaſ*; *ongeat*; *ongeaegn* (4); *ceastra* (10); *sceaft*, *sceæftes*; *sceal*. The form *peodscip*, cited as a case of umlaut (with a reference to Sievers, §98, note), is not in point, the *i*, as Sievers states, being West Germanic.

The *e* remains unchanged (*geldas*, *forgefo*, etc.), except in *gyld* (subst.), discussed below.

The only example with *ê* from *â* by umlaut (§ 42.1) is *toscêande*. *Geande* in *from geande* (= *from gânde*) may be compared with *geaep* of the *Ritual*. The *ê*, (Goth. *ê*, WG. *a*) is unchanged (§30.1) in *ongêton* (4); *scîp* appears, as in the *Ritual*. *Sceacerum* is an anomalous form in that the Anglian form should theoretically be **scêcere*, or by a remote possibility **scîcere*, like *scîp*. Bülbring (*Anglia Beiblatt*, 9,77, note 2) assumes a short vowel. Fücksel (§ 22, III) refers to the relation of *sceacere* and *scîp* as peculiar. Retention of *æ* is hardly possible; the vowel is to be assumed as short. It may have been conformed to words of its class with a short *æ*, like *bæcere*, *tæppere*.

The forms with *sc* before gutturals are as follows (§§ 29; 31; 137, 5):

ea from *a*: *sceacas*; *sceal*; *scealt*; *scealde*, *scealdon*; *morsceape*.

eâ from *â*: *toscealdade*.

eo from *o*: *sceomfulnise*; *sceortum*; *sceofmum* (= *sceomum*).

eô from *ô*: *gesceôp*; in *scôes*, *scôe*, *gescôed*, the vowel remains unchanged.

The forms with original *j* (§§ 28; 83) are as follows:
i: only in proper nouns.

gi: *gie* (pron.) (96) beside *gê* (6), '*gê*' (3), '*geê*'; (1); '*giee*' (*jam*), (1) beside '*gee*' (7); *gigope*; *ging*; *bigienda* (see below).

ge: *geone* (5).

g: *gêt* (7), '*gêt*' (1); and see under *gi*.

3. LINDISFARNE JOHN.

Palatal diphthongization of *æ* is sporadic (§ 21, II):
ongeægn beside *ongægn*; *togægn*, -as; *ongeāt*; *geadre* beside -*gaepre*; *gegeadredon*; *ceastra* beside *cæstre* (Füchsel notes that *ea* occurs 75 times in the four gospels, *æ* twice); *scaft*; *sceacere* (see above, under 2). *E* is not diphthongized.

Sc is followed by a glide before *a* (§ 21, III) in *morsceape*; *sceapana* (beside *scæppana*); before *o* in *scealde*; *gesceoriade*. Before *â* (WG. *ai*) in *asceâden*; *sceâp*. Before *ô* no diphthong appears in *scôes*, (beside '*sceoea*', '*sceowum*', '*scoeum*', etc. in *Luke*; '*scoea*', *geoceoe*' in *Matthew*).

The cases with *j* are as follows (§ 21, I):

gi: *gie* (pron.) beside *gê*, '*gê*', '*gee*', and '*geê*' (*Matthew*), '*giæ*' (*Luke*); and *gi* (adv.) beside '*gee*' '*geê*' '*gê*' and '*gê*', '*giee*' (*Matthew*); *giungra* beside *gingesta* (*Luke*).

g: *gêres*; *gêrc* (= *gêre*), and see forms under *gi*.

4. DISCUSSION.

This survey of the Northumbrian forms points two facts—the use of a diphthong marking an advanced stage of palatalization is comparatively rare, and yet in certain cases the diphthong is used. The question is of immediate importance whether this apparent fluctuation merely indicates negligence on the part of the scribe, or represents actual variation in usage. The latter is the case. Study of the forms makes clear that the scribe repro-

duced the spoken speech, with such variation as occurred historically. Exceptions to the normal usage of the text are such as would naturally appear—the exceptions that prove the rule. In particular, in the case of certain words, diphthongization is practically invariable, while in other words there is marked variation. Since the reason for this can apparently be pointed out, it seems possible to assume with confidence that the scribe was not careful in the one case and careless in the other.

The forms with *c* and *g* will be taken up first, those with *sc*, as in some respects an exceptional combination, later.

The conditions are as follows: with *æ* from *a* in closed syllables we have, in the *Ritual*, *ceaster* (6 cases), *-geadr-* (7 cases), as over against *begætt*, *gætto*, *gættana*, *ongægn* (4 cases); in *Mark*, *geafel*, *ætgeadre*, *gegeadrad*, *-geaf* or *geæf* (2 cases beside *gaef*), *ongeaf* (beside *ongæt*, *-gætt*, 4 cases), *-geægn* (4 cases beside *-gægn*, 4 cases) *ceastra*; in *John*, *geægn* (-) beside 3 cases with *æ*; *ongeaf*; *-geadr-*, 2 cases beside 1 with *æ*; *ceastra* beside *cæstre*, the total for *Lindisfarne* being 75 cases of *ea* to 2 of *æ*.

Some of these cases of diphthongization are exceptional—significantly so—as compared with West Saxon, and must be separately considered. The form *geafel* is instructive in this connexion. It occurs twice in *Lindisfarne* beside some ten cases of *gæfel* (once *gæfil*). How is the diphthong to be explained? In speaking of *u-o* umlaut Mrs. Wright says (§ 16), "The form *geafel* XII. 14 = W. S. *gafol*, is probably not an exception to this rule [that *a* is not affected], but an example of the influence of a preceding palatal." This is probably correct, but the word has primarily no right to a stem-vowel *æ*, without which diphthongization is impossible. The associated forms in the text do of course attest the occurrence of the word with *æ*, but the *æ* is itself exceptional and late, and the

word is in marked contrast, as regards its diphthongization, to West Saxon *gafof*.

The forms (-) *geadre*, *geadrung*, *geadriga*, also are exceptional. Words from this stem appear invariably with *ea* in the *Ritual*, although this text (accidentally, presumably) exhibits no trace of the sporadic diphthongization after *g* occurring in *Lindisfarne*. These words are also invariably diphthongized, in numerous cases, in *Lindisfarne*. Such uniformity demands an explanation, as well as the fact that words from this stem are not diphthongized in West Saxon.¹

Bülbring, in a review of Vietor's *Die Northumbrischen Runensteine in Anglia Beiblatt*, 9, 76, notes in regard to these forms, "*aetgadre*, über dessen *g* V. zweifelt, hatte sicher den velaren reibelant; und es ist durchaus unnötig anzunehmen, dass 'das *g* sich dem *a* angepasst' hätte; vielmehr ist der wg. laut erhalten. Dagegen bezweifle ich seine annahme von palatalisierung in dem *ætgeadre* der Lind. Gosp. [und des Rituale]. Nach palatalem *g* hat nämlich das Ri. nur *æ* (*begætt*, *ongægn* vier mal; *gæto* 'thore', *gætto*, *gættana*, formen, die vom sg. *gæt* neu gebildet sind); aber stets heisst es, mit *ea*, *ætgeadre*, *ætidgeadre*, *gigeadriga*, *geadrung*, *geaprun* (zusammen sieben mal). . . Im Lind.-ms. begegnet *gæfel* (6 mal), *nedgæfel* (1), *ongægn* (7), *togægn* (13), *gæt* (4) *agæf* (4), *for-gæf* (2), *begæt* (3), *ongætt*, *ongæt* (17), wozu sich *agef* (1), *togægnas* (1), *ongæn* (1), *ongeæt* (1), *forgeæf* (1), *ongeaen* (1), *ongeaegn* (5), *togæaegnes* (2) gesellen; *ea* kommt in diesen wörtern nur verhältnismässig selten vor (*geafel* 2, *geat* 2, *forgeaf* 5, *ongeaf* 3). Dagegen erscheint *ea* wieder ausnahmslos in *geadriga* (6 mal), *gegeadriga* (7), *geadrung* (1) und zehnmal in *ætgeadre*, woneben nur drei-

¹ To the significant feature of the uniformity of the diphthongization in these words, I called attention in my original draft (1895). Bülbring has also done so in the article quoted below.

mal *æ* und einmal *eæ* auftritt (*ædgædre*, *aedgædre*). Dabei ist wichtig, dass in Me. *gaderen*, *gederen*, *togadere*, *togedere*, *togidere* nur den verschlusslaut *g* aufweisen, während für den ae. palatalen reibelaut *g* in allen me. dialekten *ȝ* steht (*ȝaf*, *ȝat* usw.), sofern nicht aus dem An. der verschlusslaut *g* (*gaf* usw.) eingedrungen ist; vgl. Beiblatt VII, 63 [65] f. und Museum IV. 220 f. Daher ist für das *ea* in *geadriȝa*, *aetgeadre* usw. eine andere Erklärung nötig als in *ȝeafel*, *forȝeaf* usw.; und zwar wird **æt-ȝædyri* = *ætgedere* vor der Zeit des *u/o*-umlauts **ȝad-urōjan* = *gaderian* in *ȝædurōjan* umgewandelt haben, woraus durch *u*-umlaut *geadriȝa* entstand, dass dann hinwieder das adverb zu *aetgeadre* machte. Auch sonst kommt im Ae. gelegentlich *u / o* umlaut eines *æ* vor, z. b. in *ȝefreatwian* (im Rituale und in Aelfric's predigten) aus **ȝifræt-uwōjan*; vielleicht auch im nordh. *ȝifeasta* (Ri. und Li.) 'fasten' neben *ȝifæsta*."

Exception must be taken to the exceedingly pretty explanation, which Bülbring offers. There is no inherent difficulty in supposing that the adverb affected the verb; Bradley had the year before assumed this as a probability (N. E. D., s. v. *gather*). There is also, however, no inherent necessity—in West Saxon, for example, the variant *gædrīan* might readily result beside *gaderian*, if only orthographically, by conformity with other verbs with closed syllables. As regards the present case, must the influence of the adverb be assumed? The train of changes necessitated is difficult to credit. Bülbring postulates in **ætȝædyri* first an affection of the *u* by *i*-umlaut, then an affection of the *a* to *æ* by the *ȝ* thus produced, then a transfer of the *æ* thus produced by association to the verb **gædurojan*, then the working of *u-o* umlaut on this transferred *æ*. This certainly demands the assumption of an extended development between the time of *i*-umlaut and

u-o umlaut, not to speak of the primary difficulty of supposing that the adverb was able to constrain the verb to such absolute uniformity as the examples display. Moreover, there is nothing in this development which could not have taken place in Mercian; one should confidently expect to find the same development taking place there. But it does not: witness *gegadrian* of the *Psalms*. This leads to the question whether the true cause of the development has been determined. Is it necessary in the first place to postulate an *æ*, before the working of *u-o* umlaut can be admitted? *A* certainly is not ordinarily affected in Northumbrian by *u-o* umlaut, but in one at least of Bülbring's examples, *gefreatwian* from **gefrætowojan* (to quote his form), it is not clear how he is justified necessarily in assuming *æ*. The question of *æ* as over against *a*, and of such influence as the adverb may have exercised, may, however, be left in abeyance. The main point is, whether we may not discriminate here the workings of *u-o* umlaut in a special group of cases.

Whatever view may be held of the nature of *u-o* umlaut, its effect is to replace the original vowel by a diphthong consisting of a palatal and a guttural element. For an example of *a*, Mercian *steapol* may be instanced. Whether such a diphthong will develop from the inceptive stages of the affection into a form requiring orthographic expression depends, of course, upon the sounds in combination with it. The nature of the initial consonant is generally recognized as an important factor; initial *w*, for example, or the fact that the vowel stands in anlaut, is an effective coadjutor to the development. Can this be assumed of the *g* in the group under discussion? *G* is not, of course, if standing before *a*, primarily palatal, but it is, by its phonetic nature, susceptible and responsive to palatal affection, and therefore may be assumed to stand in a permis-

sive and auxiliary relation toward, and thus cooperate with and help to effectuate, diphthongization.¹

This supposition of cooperation of the *g* accounts for the absence of *u-o* umlaut in this group in Mercian, where no palatal diphthongization takes place. The question why forms with the symbol *ȝ* are not discoverable in Middle English is rendered no more difficult, whether this explanation be assumed or Bülbring's. The existence of variant forms without diphthongization, the influence of Mercian, the use of non-vernacular literary forms, the influence of the adverb,—all these may have estopped the tendency to the use of palatal *g* and hence occurrence of *ȝ* in Middle English.

Whether to this same influence the diphthongized forms of *gæfel* are to be referred is open to question. The word does not show the same uniformity in the use of the diphthong, and therefore seems to belong properly among the cases with sporadic diphthongization. Possibly, the lack of uniformity is due to the existence of a variant **gæfl-* beside regular **gafol*. The diphthongized forms would then be due either to the original **gafol*, i. e. they would fall into the group under discussion (a form with *æ* remaining beside them from **gæfl-*), or it would have to be supposed that the non-normal form **gæfl* supplanted **gafol*, and that the variation was due to the ordinary sporadic diphthongization, a view like Chadwick's (see p. 62), except in not assuming **gæfl-* to be the regular form. This latter supposition is not acceptable, partly because it necessitates assuming that a non-regular form drove out a regular form, and partly because it does not explain another word, *ceafertun*, beside *cæfertun*, in *Lindisfarne*. Syncope is not possible in this word—**cæfɾtun* is incredible. It might

¹ Palatal diphthongization of *e* would not, of course, be assisted in this way, as the palatal diphthongization of *e* produces *ie*, while the *u-o* umlaut is *eo*.

be conjectured that as the ordinary diphthongization is late, it is possible that the second vowel in these words had assumed palatal quality and changed the first vowel to *æ*, and that hence sporadic diphthongization was possible. But this is inherently unlikely—the *e* of the second syllable must represent merely the obscure vowel. The most probable explanation is that the *æ* represents a partial or ineffectual working of the umlaut, with the diphthong only partially developed, so that these words are at one time written with the full *ea*, at another with the inceptive form *æ*. In that case, both *geafel* and *ceafertun* belong in the group with *geadriga*, etc., and *geafel* is in dialectal accordance with the *geabul* of the *Glossaries*, and the unaffected *gafol* of West Saxon.

This influence may also be conjectured in *gæt*, gate. In the singular, it would be susceptible only of sporadic diphthongization like *gæf*. In the plural, *gatu*, the influence of *u-o* umlaut should have been felt. *Lindisfarne* has *geat* (nom. sing.), *geatt*, (nom. pl.) beside four cases of *gæt*, *gætt* (nom., dat. and acc. sing.).

To this group may also be referred *geatum* (= *geatwum*) of the *Leyden Riddle*. Whether to this group should also be referred the forms *Cead-*, *Cæad-*, *Cædualla* (beside *Cæd-*, *Caed-*, *Cedualla*) in Bede, adverted to by Bülbring (ib. p. 77), that is, whether they are to be regarded as due to a combination of palatal influence and *w*-umlaut, depends upon the question whether the forms with the diphthong are genuine Northumbrian forms. There may be variation here between Northumbrian and West Saxon forms. Two cases with *sc* are taken up below.

Ceaster is an exceptional form of different character. It is an exception, not in having a diphthong, but in the uniformity with which the diphthong is displayed—six cases in *Ritual*, all diphthongized, and seventy-five in *Lindisfarne* with the diphthong, to two with *æ*. The con-

trast this word displays to the sporadic diphthongization in other words is most striking. No other word in the *Ritual* has *c*, but the forms with *g*, except the *geadr*-group, show no diphthongization whatever, yet all the cases of this word are diphthongized. The reason for such uniformity, it is difficult to suggest. Special interest attaches to the word and the fact of its uniform diphthongization for the reason that the conditions recorded in these two texts absolutely accord with the conditions appearing to-day in place-names having this word as an element in what was Northumbrian territory. It has sometimes been noted as a curious and puzzling fact that after passing away from the *-chesters* of the South, through the *-casters* and *-cesters* of the Midland, one comes again to a group of *-chesters* in the North,—*Lanchester*, *Binchester*, *Chester-le-Street*, *Ebchester*, *Ribchester*, *Rowchester*, *Rutchester*, etc. (cf. Taylor, *Words and Places*, 1873, p. 174). The probable explanation—which seems far-fetched at first—is that place-names were most commonly formed with a genitive for the first element (e. g. *Rouesceaster*) and this was commonly an *s*-genitive. The consequence is we have not *c* simply, but the combination *sc*, which, developing like the *sc* elsewhere (see below), attained higher palatal quality than the *c* by itself, and therefore uniformly diphthongized the vowel. The influence of the word in place-names then inevitably influenced the word in its independent use.

Apart from the cases just considered, there are none with diphthongization after *c*, *g* in the *Ritual*, and few in *Lindisfarne*.

Bülbring's list (ib. p. 76) for *Lindisfarne* may be cited. Beside forms already considered, there are the following: *-gægn* (-) (20), *-geaegn* (5), *-gegnas* (1), *-geaegnes* (2), *-gæn* (1), *-geaen* (1); *gæt*, noun, (4), *geat* (2); *-gæf* (6), *-gej* (1), *-geæf* (1), *-geaf* (5); *-gaet*, pret. (20), *-geæt* (1), *-geat* (3).

The forms with *ea* are plainly true cases of palatal diph-

thongization. The affection is sporadic. In this connection, a word may be added regarding the spelling *eæ*. Bülbring (*Elementarbuch*, § 296) seems to find in this spelling evidence of a rising diphthong, and apparently considers words with this spelling as later diphthongizations than those with *ea*. This is hardly probable as they occur beside each other in the same word in the same text. They seem rather to evidence lateness of diphthongization, and to represent variation of form in a diphthong as yet not fully established. Further, they accord with the explanation of the process of diphthongization given above (p. 6), as representing the change of *ææ* to *eæ*, the later stage of which is *ea*, and are to be regarded accordingly as falling, not rising, diphthongs.

E, as stated, does not display diphthongization (e. g. in numerous forms of *gefa*, *geta*, and in *sceld*). The diphthong *ie* is, in fact, rare. It appears by diphthongization of the secondary palatal *e* in *scieppend*, *scippend*, in the *Ritual*, *gyld* (subst.) in *Mark*, and *scîp* in both texts. Another apparent example of *ie* is *bigienda*. *Scieppend* is, of course, not due to umlaut of an original *ea*, which would have been *e*, but to insertion of a glide, before the *e* of an original **sceppend*. While it seems at first necessary to regard *scîp* as due to some external agency, owing to its isolation as an example of the diphthongization of original *e*, *ê*, it is at least supported by the similarly isolated *scieppend*, *scippend* and must be explained as a monophthongization of **scîep* from **scêp*. *Bigienda* is due to a special development. *Gyld* is a perverted form, written for, or by confusion with, *gylt*. These forms (except *gyld*) are further treated below.

To pass now to the exceptional combination *sc*. The forms in which *sc* stands before palatal vowels are of special interest. They are as follows, those without diphthongization being inclosed in parentheses: (*Ritual*) *asceæccen*

(*ascæccenum*); (*ascæpen*); -*sceæft* (1 case, beside -*scæft*, 37 cases); (*giscaep*-, 2); *sceap*' (imp. 2d pers.); *scieppend*, *scippend* (beside *sceppend*, *scēpend*, *sceppend*, *scæpend*); *sceall* (beside *scal*); (*sceppa*); (*sceld*); *scīp*; (*Lindisfarne Mark*) *sceafte*-, *sceæftes*; *sceal*; *toscēānde*; *sceacerum*; (*sceppap*); *scīp*; (*John*) *sceaft*; *sceacere*; *scīp*; elsewhere *sceattas* (1), (*scael* (1)), (*scæft*); *sceæcende*, occur.

The cases in which *sc* stands before guttural vowels, it is not necessary to list again; see pp. 21, 22, 23.

The combination *sk* differs from *k*, *g*, in that it diphthongizes guttural vowels, and in that the cases with *æ* present contradictions not explainable as due merely to the sporadic nature of the diphthongization, as in the case of *k*, *g*.

The combination must plainly have developed palatal quality independently of the following vowel, else the diphthongization of gutturals would have to be explained as due to transference from forms with palatal vowels, and if so the diphthongization of palatal vowels would be more uniform than that of guttural vowels, which is not the case.

The combination did, in fact, contain conditions for self-palatalization.¹

An explanation of the development, practically satisfactory, is contained in Wilmann's *Deutsche Grammatik*, § 57, with reference to the somewhat similar sound in High German: "Die Entwicklung von *sc* zu *sʃ* ging, wie aus dem zusammengesetzten Zeichen *sch* zu schliessen ist, in der Weise vor sich, dass zunächst die Tenuis *c* zum Spiranten *ch* wurde. Statt der Verschlusses, der von Anfang an verhältnismässig schwach war, wurde bald nur eine Reibungsenge gebildet, allmählich immer fluchtiger und unvoll-

¹The statement which follows, with regard to the double development of *sk* was contained in my original draft (1895). I include now Bübring's statements in regard to this sound.

kommner, bis der Laut schliesslich ganz erlosch. Jedoch ist das nicht so zu verstehen, als wäre der neue Laut einfach dadurch entstanden, dass das *c* hinter dem *s* verschwunden sei; denn sonst müsste das alte *s* in der Verbindung *sc* eben den Laut unseres nhd. *sch* gehabt haben, was durchaus unwahrscheinlich ist. Vielmehr ist anzunehmen, dass das *c* erst schwand, nachdem es die Articulationsweise des vorangehenden *s* wesentlich beeinflusst und verändert hätte, ähnlich wie das umlautende *i* erst schwand, nachdem es den Vocal der vorhergehenden Silbe umgestaltet hatte. Die beiden Laute waren zu einem neuen eigentümlichen Gebilde zusammengeschmolzen. . . . Dass das *c*, ehe es verschwand, palatalisiert war. . . hat man keinen Grund anzunehmen."

This explanation serves to indicate the general character of the change. In regard to the possibility of *sk* becoming *sç* in Anglo-Saxon, Bülbring (*Anglia Beiblatt*, 9, 104) remarks, that the view is not to be accepted that *sc* at the end of the 9th c., or through the entire Anglo-Saxon period, had the value *s* + palatal *k*: note Old Norse words with *sk* retained, the dropping of *c* or after-insertion of it in *sc* in the *Vespasian Psalter*, its insertion in such forms as *sclât*, etc. (with the value of a true *sç*). Bülbring concludes that West Germanic *sk* at the beginning of the period of literary record had become *sç*, or at least a sound like it. After referring to the conduct of *sk* with primary and secondary palatal vowels in *Rushworth*² (to be noted later), Bülbring concludes that *sk* became *sç*, at least in Northumbrian, before the time of *i*-umlaut.

In his *Elementarbuch* (§§ 508 ff.), Bülbring posits development of *sç* to *sç* before the primary palatal vowels anterior to *i*-umlaut, and its subsequent development to *sç* both before primary and before secondary palatals after they had been formed by *i*-umlaut. This *sç*, he assumes, passed over into forms where there was no palatalization (e. g.

sceolon, *sceoldon*, frequent in Aelfred and normal in Aelfric). Apart from this *sċ*, he posits also an *sċ* by independent development, as in *scunigan*, *scot*, *scrūd*, etc.

He also says (§ 297) that diphthongization of guttural vowels takes place only after *j* and *sċ* and the diphthong is necessarily a rising one. "Es scheint jedoch," he continues, "das zwischen den palatalen Konsonanten und dem velaren vokal z. T. nur in der Schrift ein *e* oder *i* eingeschoben wurde, um anzudeuten, dass *g* und *sc* nicht wie [ʒ] und [sċ], sondern wie [j] und [sċ] auszusprechen waren. . . . Am sichersten ist Diphthongierung anzunehmen, wo die Form des ursprünglichen Vokals verändert ist, wie in *geogub*; andererseits ist sie am unwahrscheinlichsten in Texten, welche die palatalen Vokale gänzlich oder teilweise undiphthongiert erhalten."

Exception may be taken to Bülbring's suggestions regarding the distribution of the three sounds derived from *sċ*—*sχ*, *sċ* and *sċ*—and the significance of the glide after *sċ* before guttural vowels. The problem presented by Northumbrian conditions really centers in the explanation of the forms with *sc*. In the case of *c* and *g*, diphthongization is sporadic. The evidence points to a late inception of the affection. It is hardly possible to construe otherwise the variation in the diphthongization as well as the fact that *e* remains wholly undiphthongized. This is also true of *sc*, except that in this case we have evidence of a somewhat more advanced stage of palatal quality, which must be attributed to the nature of the combination, as admitting of self-palatalization. That the combination had become palatal, even when followed by a guttural vowel, is attested by numerous cases with *e* inserted before such vowels. That this sound was *sċ* may be affirmed with confidence. It is not credible that *sċ*, followed by a guttural vowel, could develop to *sχ* with a *χ* so palatal as to cause introduction of a glide. The conditions are in fact the

same as those which inhibited development of *k* and *g* to palatal quality before gutturals. What presumably occurred was that the point of contact of the *k* advanced through influence of the *s* to *χ*, the *s* assumed *sχ*-articulation, and the *χ* then gradually disappeared. On the other hand, *sk* before palatals developed to *s* + palatal *sχ*. The difference in this case is that as the point of contact of the *k* advances, there is no obstacle to its progress presented by the vowel. It becomes palatal, and diphthongization results. In this development, the production of a variant *sχ*, as in the case where a guttural vowel follows, is of course not excluded. This must be carefully noted because of the fact that as the *sχ* is a pure palatal, and made far forward, it does not diphthongize a following palatal vowel. In the case of diphthongization of palatal vowels, as explained above, by *k*, *sk*, or *g*, the diphthongization is incidental to the process of palatalization. With substitution of the unitary sound *sχ* from the position *sχ* before the diphthongization takes place, a homorganic combination is formed with the palatal vowel and there is not the requisite difference of quality to produce diphthongization.

This point is of the highest importance, as upon it depends, as will be seen, the explanation of the perplexing variation between diphthongized and undiphthongized forms having original *sk*. It will be made clearer by a consideration of the nature of the sound represented by *sχ*. Bülbring distinguishes two values for the single symbol he uses (§ 506), one approximately like modern *sh* in *shoe* (appearing, for example, in *scot*), the other like *sh* in *fishing* (appearing in *scînan*). The latter he calls the "palatale *sh*-Laut," meaning presumably the sound as produced before palatal vowels; both sounds are of course palatal. According to the view here proposed, *sχ*, when developed from *sχ*, or from *sχ* with partly palatalized *χ*, by direct change, somewhat resembles the *sh* of *shoe*, though this

does not describe it quite accurately. The modern *sh* is in all cases made too far back along the edges of the tongue-blade. To produce what is conceived to be the true sound, an *s* must first be articulated with the mouth orifice closely narrowed and with the tip of the tongue and forward part of the blade close to the teeth. Care being taken to keep the mouth orifice narrowed, if *sç* is now articulated with the extreme end of the blade, it will be found practically impossible to pronounce the word *scot* without introducing a distinct glide. After an *sç* in this position, the palatals *æ* and *e* are articulated without any trace of a glide. If, in the next place, **skot* is pronounced and changed to **sçot*, the tendency to direct change from **sçot* to **sçot* will at once be perceived and the process of the original development of *sç* from *sx* will become clear.

In the case of *u* after *sç* (as in *scucca*), the glide will be found to be far less noticeable than before *o*. If next the mouth is widened by retraction of the lips, an instant change to *sceocca* results. The same is true of *j*. **juk*, pronounced with the orifice closely narrowed, has a barely perceptible glide, **jiuk*; with widening, the word changes to **jeok*. It is to this that the change of *u* to *eo* after *sç* and *j* is due. The widening in the case of the individual word depends in part upon accident; hence, *u* and *eo* are found beside each other in the latest texts, even in the same word. Where it does occur, it is to be explained as due either to anticipation of guttural vowels (as being 'open' vowels) in the next syllable, or to the character of the following consonant. In the case of **jung*, there is alternation between the *u* and the *eo*, due to weak and other forms of the word; the *u* finally persists through influence of the nasal. In the case of *geoc*, that form is the prevailing form owing to the opening of the mouth for the clear articulation of the *k*. It will be observed that no change of stress in the diphthong is necessitated; hence,

there is no difficulty in explaining why *geoc* gives modern *yoke*. Occasional change of stress, occurring sporadically when *u* changes to *eo*, depends, as will be noted later, upon another cause.

Before passing to the examples in the texts, we may take note of Bülbring's comments on the examples in *Rushworth*² (*Anglia Beiblatt*, 9, 99). He notes that primary palatal vowels are diphthongized after *sc*, while secondary are not. As the 'velar' vowels are not diphthongized (*scô*, *scûr*, *scomu*, etc.), he sees exceptions in *ymbsceân*, *âsceacap*, *scealdun* (which, he says, "wohl alle durch sklavisches abschreiben erklärt werden müssen"); further *giscêodne* ("unklare form; einmal; *gesêad* in Li."); also (*mor*)*sceapa*, -o (6), *sceopo* (2) (this example with its varying *ea*, *eo*, he refers to an isolated form with *æ*, saying that the word does not appear as -*scapa*, noting however three cases of *scape(na)* in *Rushworth*², and accordingly assumes early diphthongization in a form with *æ*, the diphthong being then carried over into the -*scapa* forms). *Scæcas* (imp. pl., one case, beside *sceacas* in *Lindisfarne*) presents, he continues, an exception of a different sort, the *æ* being carried over from other verbs of the same ablaut-row, e. g. *onsæccap*; and he adds also to his list *sciolon*, *scilon*, etc. in both *Rushworth*² and *Lindisfarne*.

Bülbring later (*Elementarbuch*, § 301) admits the diphthongization of *a* in *âsceacap*, *scealdon*, *ymbsceân*, while reserving judgment concerning the dubious forms with *eo*. These, with the forms of *sculan*, will be treated below in connection with the examples in the texts.

Further (*Anglia Beiblatt*, 9, 105), Bülbring suggests various possibilities to explain the cessation of diphthongization after the time of *i*-umlaut, as in *scêp*. The tendency to diphthongization may have ceased in the dialect of *Rushworth*²; or "*sġ* konnt sich mittlerweile weiter nach *sġ* hin (oder selbst wirklich zu *sġ*) entwickelt haben"; or

sχ may have remained before 'velar' vowels after the time of *i*-umlaut, the *χ* in *sχ* palatalizing at the same time with *k*, *g*, etc., or, in case this carries the change of *sk* to *sχ* too far back, the possibility remains of supposing that *sk* first developed into *sĕ* (with palatal *ĕ* before primitive palatal vowels) and into *sĕ* (with guttural *k* before 'velar' vowels), and later (but still before the time of *i*-umlaut) passed over into *sŷ* and *sχ*. In case one of these developments is not to be assumed to explain undiphthongized palatal vowels in *Rushworth*², Bülbring concludes that the acceptance of one is still necessary in the case of West Saxon, where we find cases of undiphthongized secondary palatals, such as *scencan* and *scendan* beside *sciendan* (*i*, *y*).

The explanation of the difficulty, which Bülbring presents so clearly, is to be found in the development of *sk* suggested above. In the first place, pre-umlaut diphthongization is not proved by the fact that secondary palatals are not diphthongized. The development was as follows. Until the period of the text, there had never been diphthongization after *c* and *g*, as the text shows. There was however, but after the period of *i*-umlaut, diphthongization of the primary palatal *æ* after *sĕ*, owing to the peculiar nature of this combination, in which the *s* assists the palatalization; hence *scīp*, *sceal*, *sceatt*, *sceacere*. This diphthongization is not however due simply to the self-palatalization of the *sĕ*, but to cooperation of the *s* and the following palatal vowel. But it was impossible for the forms with secondary palatals to share in this affection. The *i*-umlaut works in the forms concerned upon *a*, *ā*, *æ*, *o*, *ô*. In the case of the *a*, *ā*, *o*, *ô* the *sk* had, up to the time of *i*-umlaut, remained guttural, standing, as it did, before guttural vowels. At the time the primary palatal *æ* was diphthongized, the *sk* standing before the *æ*, *ê*, *æ*, *ê*, by umlaut had not progressed sufficiently far in assuming palatal quality to enable them to share in

that diphthongization. Given a sufficient period of time and supposing no intervening inhibition, they also would normally have developed diphthongs. There was however an inhibiting cause. The influence of the *s*, which brought about the diphthongization of the primary *æ*, through cooperation with it in palatalizing *k*, though *k* and *g* alone produced no such affection, was also at work where the combination stood before guttural vowels. Here, as explained, the affection operates from the stage *sx* and produces *sč*. This new sound had, in the period of the text, diphthongized *a*. But in this affection the *sx* before secondary palatals shared. It changed to *sč*, and in consequence formed a homorganic combination with the vowel, and diphthongization did not take place.¹

This explains the immunity of *scæp*, *giscæft*, *giscê* to diphthongization. *Giscæft*, it may be interjected, is assuredly an example of *æ* by *i*-umlaut from *a*; its immunity here proves it so, as well as West Saxon *gesceaft*; for the full explanation, see under the discussion of West Saxon below. The question next arises in regard to *i*-umlaut of *æ*. The example is (*gi*)*sceppa*. Bülbring, who argues pre-umlaut diphthongization, explains this form as from **(ge)sceappian*. This is perfectly legitimate from his point of view, but it may also have umlauted from **(gi)sceppan* to (*gi*)*sceppa*, and the *e* have remained undiphthongized as in *sceþ(p)end* of the *Ritual*, or indeed the *e*'s in general (cf. *Ritual*, *sceld*). The diphthongization of *e* to *ie* was extremely rare in Northumbrian; the examples are confined to *scîp*, and the *sci(e)ppend* of the *Ritual*. The presence of *scîp* in *Rushworth*², considering general conditions, is sufficient to cast doubt upon its being a genuine case.

This development is almost precisely identical with

¹ Bülbring, it will be perceived, grazes this explanation in the second of his suggestions above. One main point of difference is that he assumes pre-umlaut diphthongization.

that in West Saxon, where indeed the change of *sx* to *sċ* can be approximately dated. The difference is that in West Saxon (and in northern Northumbrian also), there is variation as regards diphthongization of secondary palatals. In *Rushworth*², which shows a marked disinclination toward diphthongization, the whole affection is at a backward stage, relatively speaking, and quite consistently so. There is no diphthongization after *c, g*; after *sc* only in the case of the primary palatal *æ*; none of secondary palatals, because of the anterior development of *sċ*; and the diphthongization of gutturals by *sċ* is displayed only in the case of *a*. Even here it is possible that sporadic cases of diphthongization of secondary palatals would appear, were the examples more numerous.

To take up now the examples in the *Ritual* and *Lindisfarne*: in the case of the northern dialect of Northumbrian, the whole grade of normal palatal affection is more advanced than in the southern dialect of *Rushworth*². There is sporadic diphthongization after *c, g* where in *Rushworth*² there is none. The primary *æ* is regularly diphthongized after *sc*: *sceaccerum*, *sceal*, *sceattas*. The forms with secondary palatals exhibit a striking diversity, for the explanation of which their relation to the change of *sx* to *sċ* is to be considered, together with the influence of related forms. The evidence indicates that in general, the change of *sx* to *sċ* inhibited diphthongization, as in *Rushworth*²; the combination had also, in certain cases, an unchecked development and occasioned diphthongization.

Asceæccen occurs beside *ascæccenum* in the *Ritual*. The normal development, according to the explanation above, would be that this word was not susceptible of diphthongization at the time the primary vowels were diphthongized, and was inhibited from diphthongizing later by the change of its *sx* (perhaps partly palatalized) to *sċ*. To this, the

undiphthongized form is due. The diphthongized form is indecisive. As the verb has a diphthong due to *sc* before *a* in all the forms in *Lindisfarne*, it is possible the diphthong in this form is due to scribal transfer, which would be the case also in the *sceæcende* of *Lindisfarne*. But it is more probable that both forms are due to retention of *sχ* through support of the preterit, which in due course became palatal, and then occasioned diphthongization.

Sceaft appears in two well-defined forms: *sceaft* in the *Ritual* (37: 1); *sceaft* (*sceæft*) in *Lindisfarne* (4: 1). Allusion has already been made to the fact that the word is to be regarded as an umlaut form, going back to a pre-umlaut form with *a*. Two explanations are possible for the recorded forms. (1) The original *sχ* may have persisted in this word throughout, and it may accordingly have diphthongized only late and sporadically, appearing, as it does, with a diphthong once in the *Ritual*, four times in *Lindisfarne*. The objection to this is the large number of cases undiphthongized in the *Ritual*, in which the extension of *sχ* is so well-defined, as well as the nature of the *sk* combination, which normally, if conditions suit (as they do by hypothesis), would cause general diphthongization. (2) The word, according to the assumed normal development, in its regular form underwent change of *sχ* to *sç*, whence the prevailing form in the *Ritual*, and the single case in *Lindisfarne*, without diphthongization. Beside this regular form a variant with *sχ* persisted, which diphthongized, appearing in a single case in the *Ritual* and in four cases in *Lindisfarne*. This is the preferable explanation. That such a variant should appear is indeed to be expected.

The next example, *toscêænde* (pret. 3 sing.) beside *toscênas* is a case of similar variation.

The forms of the verb *sceppa*, namely *gisceap*' (appearing in one case in the *Ritual*, 168. 7, apparently not cited by Lindelöf; the passage is *hearte clene gisceap*' glossing

cor mundum crea), *scæp(p)end*, *sceppend*, *sceþ(p)end*, *scieþpend*, *scippend*, *ascæpen*, show an interesting development. On the evidence of the record, the pre-umlaut present stem had the form *skap*- as well as *skæp*-. From this stem *skap*- were derived by umlaut the participial forms with *æ*. These forms show the assumed normal absence of diphthongization due to development of *sχ*. *Gisceap*', in the imperative, was originally either **-skapi* or **-skæpi*. In the second case, it might escape umlaut to *e* as falling in with the umlauted forms having *a*. Its *æ* was in that case primary and diphthongized with other primary *æ*'s. If the *æ* is secondary, from *a* in **skapi*, its *sχ* escaped change to *sχ* through influence of the preterit-system, where the *sχ* must have remained longer than before the *a* of the present system. As regards the noun *gisceap*', *gisceappes*, it is either (with some hesitation) to be viewed as a case of umlaut with Lindelöf (§ 3, 2) and Bülbring (*Anglia Beiblatt*, 6, 77), or it must be assumed that, though having primary *æ* in the singular, it retained *sχ* by influence of the plural and of the verb.

The participial forms with *e*, in the next place, are derived from pre-umlaut forms with *æ*. Here the *e* is secondary, but the *æ* from which it was derived was primary, and its *sχ* accordingly was at an advanced stage of palatalization, when diphthongization of primary vowels occurred. Normally, *e* does not diphthongize (cf. *sceld* with original *e*, *sceppa* with secondary *e* in this same text). But there appears in this word, beside normal *sceppend*, *scepend*, also diphthongized forms, *scieppend*, *scippend*, paralleled only in *scip*. Frequency of use may probably have been a factor in both cases. In the case of *sceppa*, palatalization of the *sχ* was possibly hindered by the noun *scapa*, though here we have no evidence of transfer of the vowel as well (giving **scaepa* by umlaut) as we have in West Saxon. This, it may be added, applies also to the *sceppa* of *Rushworth*².

Development of *sċ* before guttural vowels and its extension, indicated by introduction of the glide, appears in the list of examples (pp. 21, 22, 23) and does not call for comment. The point of chief interest and importance is its relation to the development of secondary palatal vowels just discussed. The examples just examined seem to indicate that the *sċ* supplanted the *sȝ* in these forms, preventing normal diphthongization; exceptions of course occur, as in *gesceaft* beside *gisċæft*. This hypothesis explains the diversity of the recorded forms, and, as will be found later, explains analogous diversities in West Saxon; in Mercian, it may be added, the question does not occur, owing to entire lack of diphthongization, while in Kentish the material is defective, owing probably to Mercian and West Saxon influence.

Certain points in regard to the *sc* may be briefly touched upon. The forms of *scula*¹ present exceptions which call for explanation. *Scæl* in *Lindisfarne* suggests that this was the original form of the 1st person present indicative, as indeed it would be normally, in which case *sceal* represents diphthongization of a primary palatal, as has been assumed above. But a variant *scal* was also possible by conformation with the second person, which must have had the form **scalt*, and this variant occurs in the *Ritual*, and (with *scalt*) in *Rushworth*¹. The *scealde* of *Lindisfarne* cannot be referred simply to transfer of the diphthong of the present, supplanting *o*; it is due to conformation of *sceolde*, with a diphthong from *sċ*. Possible influence of *sċ* on the *u* of the present plural is obscured by transfer of the vowel of the optative with subsequent *u-o* umlaut (*sciolon*, *scilon*), as Bülbring pointed out (*Anglia Beiblatt*, 9,99), but early development of the *sċ* in the preterit and transfer of it to the

¹It is not quite clear why Cook in his *Glossary* lists the forms of this word under *sciola*. *Sceola* is presumably possible, but the present plural indicative *sciolon* is due to a special cause, as noted below.

present took place in Northumbrian, no doubt, as in West Saxon, where the word outruns other words (see below). This explains *scæl* of *Lindisfarne*, without diphthongization, beside *sceal*.

To touch briefly upon one or two of Bülbring's examples, cited by him in the article already quoted (*Anglia Beiblatt*, 9,99). The forms (*mor*)*sceapa*, -o, (*mor*)*sceopo*, he assumes to have developed from a form with *æ*, as the interchange of *ea* and *eo* points to a falling diphthong. The matter is one only of incidental interest, and does not bear upon the general development, but it may be asked whether in forms of this character, a reason may not be given for the falling diphthong, which the forms apparently evidence. Primarily and normally, such words have rising diphthongs. There are, however, what may be called for convenience *u-o* umlaut conditions present. This umlaut, in the opinion of the writer, does not operate by anticipation on the stem-vowel of the vowel of the subsequent syllable, in the sense that a glide vowel of similar quality to the subsequent vowel attaches itself to the stem-vowel. It is due to a hostile dissimilarity between the stem-vowel and the subsequent vowel, and the physiological inclination to render the last part of the word so far as possible homorganic, if the intervening consonant or combination of consonants permits. The vowel divides into two elements. The first of these is palatal (in the case of *a* taking the form of *æ*), the second becomes obscure, and passes into a guttural glide, accommodated in height to the first element :—for example, *gefan* > **geæfan* > *geafan* > *geofan* ; *hafoc* > **hæafoc* > **hæafoc* > *heafoc*. This is preferable to assuming a glide of similar quality with the umlauting element. It is difficult to understand how the *æ(u)*, *æ(o)*, posited by Bülbring (*Elementarbuch*, § 229.4), become *ea*.

The special point of significance at present is the fact that

the diphthong is a falling diphthong. A similar influence can be conjectured in the case of the rising diphthongs produced by palatals from gutturals. Anticipation of the open vowel of the second syllable causes the change of articulation noted above (see p. 36), but it may also operate to change the stress of the diphthong. The diphthong is already formed; this tendency is merely in the direction of rendering the latter part of the word homorganic from the glide or second element of the diphthong on.

This influence seems to appear in certain words with *j*. It cannot be assumed with confidence of words with *sz*, owing to the lateness of their diphthongization. The forms with varying *ea*, *eo*, adduced by Bülbring, belong properly to the group that has been assumed above, that have *u-o* umlaut of *a* after *g*, *k*, *sk*. This explains the difficulties upon which Bülbring comments (see also *Anglia Beiblatt*, 11, 94, note 1). The diphthong formed is a falling one. There is no need of assuming an original *scæpa* with Bülbring, the phonetic propriety of which is not manifest. The isolated case he cites with *æ* is simply a variant with the diphthong not fully developed. Bülbring is inclined to explain the forms '*tosceodo*' (dispono), '*togisceode*' (*interpretabatur*), beside *tosceadeþ*, in *Rushworth*², as having *eo* for *ea* from *æ* umlaut in the 2d and 3d persons. But this, as he notes, would contradict *scæp* in the same text. If, however, these forms are referred to *u-o* umlaut of *a* after *sc* in the infinitive, first person singular, and in the plural present, etc., the difficulty disappears. Variation occurs in this early formed diphthong, as it does not for example, in *ásceacap*, *scealdun*

The forms with *e*, *ê*, as already remarked, undergo diphthongization only in *sci(e)ppend*, *scîp*; but *sceld* in the *Ritual*, *sceppa* in all the texts, *scenc* (*calix*), (-) *scenda* of *Lindisfarne*, and *scelfap* of the *Leyden Riddle* are none of them diphthongized. The changes assumed are then as follows:

1. Diphthongization of primary *æ* after original *sk* (probably with the palatal spirant), subsequent to *i*-umlaut.

2. Of original *ê* in *scîp* and secondary *e* in *sci(e)ppend*, both exceptional cases.

3. Of *a* after *g*, *k*, *sk*, by *u-o* umlaut.

4. Development of *sç* from *sχ*, causing insertion of a glide, before gutturals; also affecting the forms with original *e*, *ê*, except *scîp*, and with secondary *æ*, *e*, except *sci(e)ppend*, inhibiting diphthongization except in occasional variants which retained *sk* (or *sê*).

5. Diphthongization of these variants.

6. Sporadic diphthongization after *k*, *g*.

The relation of 2 to 4 is uncertain, as it is conceivable that the forms under 2 may have retained *sχ*; but 2 probably preceded. The relation of 3 to 4 is only conjectural and based upon the fact that, in West Saxon, as will appear later, the change of *sχ* to *sç* (4) seems to have taken place about the close of the 8th century, and may presumably have taken place at about the same period in Northumbrian, being due simply to the influence of *s* upon the original *k* (compare the somewhat similar degree of extension of diphthongs from *sç* before gutturals in West Saxon and northern Northumbrian texts of similar date), together with the fact that in the *Leyden Riddle*, usually dated before 740, the form *geatum* occurs. The first change may be conjecturally dated between about 650 and 700, the third about 700. The sixth change is indeterminate, but is plainly late and sporadic. The diphthongization noted did not evidently, as Middle English conditions show, affect permanently the words concerned. Traces however of permanent influence of 3 appear. Decision was not reached with regard to the word *gæt*, *gate*, as to whether the diphthongized forms were due to late sporadic diphthongization (6) or were due to influence of the plural (which must have been in frequent use). That *a* was not affected

by *u-o* umlaut in Northumbrian is clear enough, but while, in other cases with sporadic diphthongization (e. g. *gæf*) there is no trace of *y* in the later forms, in this form we have in Scotch the form *yett*, quite out of place apparently in the north.

Passing to the original *j*, we may remind ourselves that it stands on a different plane from *k*, *g*, *s**k*. It is, for one chief point, itself a palatal, and therefore does not effect the same results as the palatals during their development from original gutturals. The affection it produces does not, further, exhibit different results in different dialects. For example, it is not proper to argue that because *k*, *g*, effect no diphthongization in a text, that *j* does not; as pointed out in the general discussion, diphthongization produced by the *j* is general Anglo-Saxon. To illustrate, —Bülbring is seemingly mistaken in saying (*Anglia Beiblatt*, 9,99) that, as *g* and *k* do not diphthongize in *Rushworth*², therefore *ging* and *gigop* must be explained as due to *i*-umlaut and unrounding of the resulting *y*, and that *bigeonda* is due to *o*-umlaut of *e*: see the discussion of these forms later. Bülbring treats the *j* as if it were equivalent to *g*, whereas it is originally palatal, not a palatalized guttural. This view further constrains him in the case of *bigienda* to posit an original **bijendan*, and to assume in a part of Northumbrian, after the time of *i*-umlaut, a diphthongization by *j* of palatal vowels—which is indeed a limitation or exception to his general theory. Diphthongization of an *e* caused by a *j* is surely inherently unlikely. In this case, a number of additional difficulties would also have to be met, and, as it is, a most complicated explanation, involving special dialectal developments, is rendered necessary.

As assumed above, *j*, as a palatal, does not, before a palatal vowel (except possibly *æ*), cause introduction of a glide. Before gutturals, however, a glide is introduced, producing

a rising diphthong, which may become a falling diphthong in rare cases. The examples are as follows :

(*Ritual*) *iocce* beside *iwocce*; *giungo*; *gigop* (-); *gieond-fær*; *gîe* (pron.); *gîe* (adv.); *gêr*; (*Lindisfarne Mark*) *gê*, 'gê'; 'geê'; 'giee' (adv.); 'giee'; *gigope*; *ging*; *bigi-enda*; *geone*, *geane*; *gêt*, 'gêl'; (*John*) *gê*, 'gê', 'gee', *gîe*; 'gee' (adv.), 'gêe', 'geê', *gi*; *gêt*, *gêtt*, 'gæf'; *giungra*; *gêr* -: *bigeonda*, *begeande*.

The form *iocce* is equivalent to **giuc*, **geoc*; the form *iwocc* has already been referred to as proving that initial *i* represents the first element of a diphthong. The ordinary form *geocc* is recorded in *Matthew*, 11.30, etc.

The various forms from the stem *geong-* have caused much discussion. Sievers (*Beiträge*, 9,207) expressed his belief that *gingra* and *gingesta* developed from **gien-gra*, **giengesta*, admitting however his inability to adduce examples and pointing to the additional difficulty that these forms are found in Anglian along with *ging* and *gigop*. Bülbring (*Anglia Beiblatt*, 9,99) on the strength of the general lack of diphthongization in *Rushworth*¹ argues that *ging* and *gigop* must have developed through *i*-umlaut of *u* and subsequent unrounding. "Daher müssen *ging* und *gigop* durch *i*-umlaut von *u* und entrundung des so entstandenen *y* erklärt werden, gerade wie *scile* (*ging* schon in den Blickling-Glossen, aus der ersten hälfte des achten jhdts., welche Sweet, O.E.T. s. 122, für ostmercisch zu halten geneigt ist). Ferner muss ebendeshalb das in Ru.² viermal vorkommende *bigéonda* durch *o*-umlaut von *e* erklärt werden (gerade wie das zweimaligie *bihionda* durch *o*-umlaut von *i*), mit späterer dehnung des *eo* (und *io*) vor *nd* (Beiblatt 9,67); vgl. me. *bizénde*, *beğēnden*, *beiēnde*, *bizēndis* (belegstellen bei Stratmann-Bradley). Frūhnordh. **bigenda(n)* aber ist als neubildung nach **gend* aufzufassen, dass im Me. als *gēnd* belegt ist und (nach einer brieflichen mitteilung Morsbach's) notwendig *i*-um-

laut voraussetzt, im gegensatz zu *ȝōnd* < ae *ȝēōnd*. Auch Li. hat (zweimal) *beȝēōnda* und (einmal) *beȝēanwa*. Auch hier beweist der wechsel von *eo* und *ea* fallende aussprache. Daneben kommt zweimal ohne *o*-umlaut *begiēnda* vor (< **bijendan*), eine form, die mit andern (in Li. und Ri.) darauf hinweist, dass in einem teile des Nordh. auch nach der zeit des *i*-umlaut noch diphthongierungen palataler vokale stattfinden konnten."

Bülbring in this explanation errs, it would seem, in that he regards *j* as if it were similar phonetically and parallel chronologically, as regards the changes it causes, to the palatalized spirant *ȝ*. The fact that *g* (< *ȝ*) and *c* in *Rushworth*² are not followed by diphthongization is no criterion for *j*. As already pointed out, this sound as an original palatal must effect diphthongization of guttural vowels in all dialects.

Apart from this leading objection, certain specific difficulties appear. Bülbring is obliged to posit *i*-umlaut in *ȝigop*. He supposes umlaut to *y* and unrounding both in this word and in *ȝing*. These forms, it may be interjected, he regards as the prevailing forms in Northumbrian, according to the *Elementarbuch*, § 298, though *ȝing* does not occur in the *Ritual* and though in *Lindisfarne* the relation of *ȝing* (-) to *giung* (-) is five to five. The umlaut to *y* and unrounding, he supports by *scile* in *Rushworth*². But in the *Psalter*, *ȝingrum* and *ȝing(r)a* appear beside *gungra*, *gungesta*, *gugupe*, etc., though in this text *ȝ* is unrounded to *i* in only two cases out of a large number, and *y* to *ȝ* only once. Further, he posits special diphthongization in *begiēnda* in *Lindisfarne*, adverting to other forms diphthongized after *i*-umlaut. The only cases that are comparable are those of *giē*, pronoun and adverb, which indeed (in the *Elementarbuch*, § 296) he explains as examples of a diphthongization later than that of secondary palatal vowels, diphthongized forms beside

undiphthongized appearing in the texts. *E* is uniformly undiphthongized after *c* and *g* (from *g*), and also after *sc*, except in *scīþ* (which he would regard as pre-umlaut) and the isolated *sci(e)ppend*. And it must be remembered further that it is not to be expected that the *j* would diphthongize a palatal vowel, especially one of the grade of *e*.

In taking up the forms in detail, exception must first be made to the assumption of umlaut in *gigop*. This is contradicted by West Saxon, and especially by the *Psalter* where, though the forms *gingrum*, *ging(ra)* appear, this word appears uniformly with *u*. The method in which umlaut can have affected the word, and still have left it in the form recorded, is not clear. The simpler supposition is to regard it as due to a change of stress in a diphthongized form followed by monophthongization. Here reference may be made to what was said above in regard to the influence of a strong guttural in the second syllable, as tending to effect change of stress. **Jiugop* becomes **jiogop*, and this becomes **jigop*, written *gigop*.

The forms of the adjective with *i* (*ging* beside *giungra*, etc.) are due to a different cause, at least in part. Influence of the umlauted comparative and superlative may in the first place be assumed. But, in these, it is not necessary to assume unrounding of *y*. Given a form **jiung-*, the tendency of umlaut would be to produce a form **jiyng-*, in which case the *y* would merge with the *i* to a resulting *i*. Further, apart from this, the weak forms of the positive might undergo change of stress, owing to the guttural element in the second syllable, and subsequent monophthongization. As a result, the record shows a positive in both forms, *giung* and *ging*, beside each other, with comparatives and superlatives to each. In regard to the monophthongization, compare *scīþ* and *scippend*.

In *begeonda*, there is clear evidence of a falling diphthong in the *begeande* beside *begeonda*, *bigeonda* of *John*.

Here too we have the necessary condition for change of stress in the original form of the word. A similar variation appears in *geana*, *geane* beside *geona*, *geonæ*, *geone*, (see Cook, s. v. *geona*). This has a bearing upon the exceptional form *begienda*, in which Bülbring assumes umlaut. The necessity of positing umlaut in Middle English *zend* is, it would seem, in view of such a change of stress, obviated. There seems to be no difficulty in supposing monophthongization from forms with a falling diphthong, by which *geond* is affected, producing **gend*, whence the Middle English form. However this may be, and whether or no *begienda* is due to umlaut, it is not necessary to posit, with Bülbring, a special diphthongization of *e* to *ie*. The ground-form is **bijenda*. In the case of *-geonda*, *-geanda*, the change of stress is to be explained as due to the guttural in the second syllable. Owing to anticipation of this guttural, causing the latter part of the word to become more homorganic, the stress is changed and further (see the explanation above, p. 36) the mouth-orifice is widened, the mouth opened, and the lips somewhat retracted, causing the *j* to be articulated in quite another position. In consequence of this (a fact which can be readily verified by experiment) the *j* partly loses its pure consonantal nature and assumes a sound *ji*. The pure *j*-sound was on the contrary made far forward with the orifice narrowed; when so made, there is no trace of the vocalic quality. The form in question **bijenda*, it is then to be assumed, was articulated like *begeonda*, *bigeanda*, and as a consequence the vowel assumed the form *ie*. Consequently, it is not to be regarded in any sense as a true palatal diphthongization. Reference may be made in this connection to the form *beienda*, *Matthew*, 9, 20, in which the *i* is to be interpreted as vocalic and the *j* receives no expression. According to this view then, it becomes probable that **bejenda* was not due to umlaut, but was a mon-

ophthongization of *begeonda*, *bigcanda*, which assumed the form *begiēnda* as a natural consequence of the mode of articulation of the form from which it developed.¹

In confirmation of this explanation, the fact may be pointed out that in *gêr*, *gêt*, in numerous examples, there is no trace of diphthongization. The form *gæt*, listed by Fücksel, is presumably due to orthographic substitution of *æ* for *e*. Cook does not give it.

The form *gieondfær* in the *Ritual* is a confused form of *geond* due to the *gi* commonly written in *giung*, *gîe*, or is due to confusion between *geond* and a possible **giend*.

The forms of the personal pronoun and of the adverb, *giē*, 'gice', beside *gê*, 'gee', *gê*, etc., developed like *begiēnda*, except that in this case, the widening of the mouth-orifice and change of *j* to *ji* were due to lack of stress. Change of stress accompanied this sporadically, as proved by the form *gi*. Bülbring, in explaining the forms *gîe*, etc., as cases of late palatal diphthongization, refers to *gi* as due to lack of stress. It is not easy to understand how mere lack of stress would at once convert a rising diphthong of the kind he posits to a falling diphthong and cause its second element to disappear. But according to the explanation given, change of stress may readily occur.

The sporadic cases of the pronoun 'gæ' (hence 'giæ') in *Lindisfarne* (see Cook) are due to conformation to 'wæ', occurring beside *wê*, or to lack of stress.

In conclusion, emphasis must again be laid on the fact that *j* as a palatal does not palatalize palatal vowels, as evidenced by *gê* (in its normal form), *gêt*, and *gêr*.

¹In this connexion, incidental reference may be made to the occasional sporadic prefixing of *g* to words with vocalic anlaut, of the type of *geador* beside *eador*. The usual explanation that the palatal spirant *g* had become so tenuous, that it was accidentally, as it were, prefixed, is far from satisfactory. If however the word *eador* is pronounced with the mouth opened instead of narrowed, though with the *e* still pure in quality, it will be seen that a *y*-sound readily prefixes itself.

Diphthongization by *j* of guttural vowels cannot be definitely dated. It may however, with some confidence, be placed early—that is, before *i*-umlaut. Sufficient warrant is found for this conclusion in the fact that the conditions for diphthongization were inherent in the sound, and in the uniformity of development evidenced by the various dialects.

III.

MERCIAN.

The text used is the *Vespasian*, formerly called the *Kentish Psalter*, as represented in Zeuner's *Sprache des Kentischen Psalters*, Halle, 1881, followed by a brief survey of the forms in the *Rushworth Glosses on Matthew* (*Rushworth*¹) as classified by Brown, *Die Sprache der Rushworth Glossen zum Evangelium Matthäus und der Mersische Dialect*, Göttingen, I, 1891, II, 1892. With these are considered, for convenience, the *Epinal*, *Corpus*, and *Erfurt Glossaries*. These three glossaries have long been tentatively regarded as Kentish, or Mixed Kentish and Mercian, or Mercian with an admixture of Kentish and West Saxon. Chadwick's exhaustive examination (*Studies in Old English*, p. 157) leads him to believe that the original glossary, which he styles Archetype 1, was East Saxon; the *Epinal* also East Saxon, but nearer the West Saxon border; the *Erfurt* Kentish; and the *Corpus* probably Mercian, but not southwestern Mercian, with some admixture of Kentish and West Saxon. The question of the dialect of these glossaries is not of primary importance, in view of the fact that their testimony is uniform. Use is made of Dieter's monograph, *Ueber Sprache und Mundart der ältesten englischen Denkmäler der Epinaler und Cambridger Glossen mit Berücksichtigung des Erfurter Glossars*, Göttingen, 1885, and Chadwick's "Studies in Old English", in the *Transactions of the Cambridge Philological Society*, 1899, 4, 2, 85-265.

The texts under this heading demand but brief treatment as regards diphthongization after the *c*, *g*, and *sc*. Diphthongized forms, except for one or two cases in *Rushworth*¹, do not occur. This fact is, however, most notable and significant. The diphthongizations caused by *j*, it

may be added, are in consequence the more striking, and bear out what has already been said regarding the necessity of keeping *j* disassociated from original *g*, with which, owing to the method of its orthographic expression, there has been a tendency to identify it.

I. THE VESPASIAN PSALTER.

“Eine einwirkung der palat. auf den folgenden vokal,” says Zeuner (§ 40.1), “ist im Ps. so gut wie gar nicht zu spüren.”

Examples of *æ* without diphthongization after *c, g* (§ 40) are *cester*; *get* (gate), *gete*; *onget* (pret.); also (§ 8.II. 2. a.), in contrast to Northumbrian, *gegadrade*. There is no diphthongization after *sc*. *Westemsceat* (§§ 8.II, and 39) is correctly explained by Zeuner (compare also Paul, *Beiträge*, 6, 39) as due to *u-o* umlaut in the plural; compare *westemsceattum*. In other words, the diphthong has run through the plural; compare *weagas*, *weogum*, *geata* (§ 8.II. 2. a.). From the plural, the diphthong has been transferred to the singular in the isolated form cited, which occurs beside the normal form *westemscette*.

It is not necessary to list examples.

The question at once suggests itself why diphthongization is lacking in the *Psalter*, and an answer can be given which renders the text consistent in its record with the conditions in Northumbrian. In Mercian, the *æ* of Northumbrian and West Saxon has been further heightened to *e*. In Northumbrian, while the *æ* is diphthongized sporadically, the *e* is not diphthongized, except in *scīp*, *scī(e)ppend*, which are offset by numerous examples, including cases with the special combination *sc*. It is wholly natural, therefore, that in Mercian the inception of the infection was precluded by the grade of the *æ* vowel. Inhibition of a general tendency would also prevent its cooperation with *u-o* umlaut (compare *gegadrades* § 1.4). *Ceafurtun*,

ceafortun, *ceaful*- are due simply to *u-o* umlaut. Direct evidence of the change of *sc* to *sċ* is not afforded by insertion of a glide *e*. But Zeuner notes (§ 39): "Bei anlautendem *sc* ist einigermale das *c* nicht geschrieben oder nachkorrigirt: *tosaecendes* 28,8; *seate* 34,13 (*sceate* St.); *ȝesild* 16,8; *onsuniende* 105,40 (*-scuniende* St.); nachkorrigirt in *ȝescended* 70,1; *biscered* 83,13; *scomien* 39,15 (*c* von 2. hd.). *scomiende* 69,4. *scome* 68,20; in *scome* 39,16 steht das *c* auf rasur. Ein schreibfehler is *ȝeseende* 118,78 für *ȝescende*." Zeuner adds in a note the observation, to which the examples indubitably point, "Dürfen wir in diesen schreibungen vielleicht schon einen hinweis auf den anfang der entwicklung des *sc* zum palat. zischlaut erblicken?"

The form *gildu* (§ 40.1), beside numerous forms of the verb with *e* and *eo* (by *u-o* umlaut), is due to the 2d and 3d persons.

Original *j* appears in the following forms (§§ 21, 27):

i: *iungra*; *iugra*; *iugupc*; also as usual in proper nouns.

gi: *gingrum*; *ging(r)a*.

ge: *geond*; *gêamrung* beside *gêmrung* with monophthongization.

g: *ge*; *get*; *gif*; *gêr*; *gunge* (3); *gungra*; *gungesta*; *gugup* (read *gugup*); *guiupe*; *gugupe*; (*gu*)*gupe*.

The individual feature in these examples is the use of *g* before *u*; there are no cases of *ju*- in the form *geo*-. This does not argue that the glide was not present in the spoken word; merely, that before *u*, as a close vowel, it is not noticeable and does not require orthographic expression (compare above, p. 36). Only when the combination is pronounced with the mouth widened and the vowel assumes the form *eo*, is the recognition of a glide enforced upon the scribe. That the glide was present is indicated by the forms *gingrum*, *gingra*, explained above. It is in this text that Bülbring's explanation fails, because of the

extreme rarity of the unrounding of *y* to *i*. Further that the symbol used, *ȝ*, connotes a vocalic element appears in its uniform use in inlaut; *herȝap*, *herȝende*, *lifȝan* (beside *lifiende*), can only mean *heriap*, etc. Before *o*, *ā* the glide is more pronounced, as the vowel is more open, and accordingly receives expression in *geond*, *gēamrung*. This text is merely individual in using *g* before *u*. In other texts, where *u* is retained, recourse is had to the *i*-spelling, and the *g* is used only with *eo* or *io*—an incidental conformation of the view that the *i* connotes a consonantal and vocalic element.

Gingra, *gingrum*, and *gugup*, have been sufficiently treated above.

The form *gēmrun**g*, which occurs twice beside numerous forms of *gēamrun**g*, is explained by L. Morsbach (*Anglia Beiblatt*, 7, 325 f.; compare also Bülbring, *Elementarbuch*, § 192, note) as derived from **jāmiring*, the *m* losing its power to affect the *ā* to *ô* through influence of the *i*. Hence it appears with Anglian *ê*. On the other hand, the more common form appears with *ā* (compare Bülbring, *ib.* § 299). This explanation is not satisfactory; the relation of the two forms is not clear. If the *ā* is retained by influence of the *i*, appearing as *ê* in *gēmrun**g*, why does it not appear everywhere as *ê*? To preserve the *ā*, whence the form *gēamrun**g* is derived, the influence of *i* has to be posited, and if that is the case, and it can be supposed that in some way the *ā* escaped the change to *ê*, it does not appear why it was not umlauted, whether still unaffected or already diphthongized by the *j*. Furthermore to posit an original form with umlaut conditions necessitates supposing it a special dialectal form.

It seems preferable, therefore, to discard in this word the supposition of *i*-umlaut and to assume a normal form similar to the West Saxon *geōmrun**g*. This becomes by change of stress **gēomrun**g*, and, by change of *eo* to *ēa*,

gêamrung (compare the use of *êa* for *éo* in § 19. II). The form with *êa* is the accepted form in the scribe's use, and the variant *gêmrung* is due to monophthongization. The word, it will be observed, is one in which change of stress would occur.

2. RUSHWORTH¹.

The somewhat anomalous conditions characteristic of this text, due apparently to dialectal admixture, are apparent in the case of palatal diphthongization. The examples with *æ(e)* are as follows: *cæstr*-(25) beside *ceastr*-(5); *ceaf*; *gæfel*, *gafl*-(8); *-gægn*(7), *ongæn*; *aetgedre*; *gegadrade*; *geatt*(-)(3); *-sceatta*; *sceal*. The evidence, on the whole, points to absence of diphthongization, as in the *Psalms*; the few indubitable cases, in which diphthongization appears, *ceaster*, *ceaf*, *sceal*, may be due to West Saxon influence, while *geatt*(-) and *sceatta* may be referred to *u-o* umlaut.

Secondary palatals, *e*, *ê* (beside *ê*, < West Germanic *ā*), are not diphthongized. The variants of the normal *scêp* attract attention. *Scêp*, with *ê* for *ê*, may perhaps be, as Bülbring tentatively suggests (*Elementarbuch*, § 153, note), a Saxon *batois* form without diphthongization; *gêfon* affords another example. *Scîp* is presumably Northumbrian; its variant, *sciopum*, is of special interest, as due to conformation, by *u-o* umlaut, of *scîep*, the unmonophthongized form of *scîp*, like West Saxon *giofol*, *ongiotan*, for *giefol*, *ongietan*. *Sc* before guttural vowels (§§ 8, 34c, 53, d) does not introduce a glide. The examples are *scape*, *scapea*, *ascakep*, *scade*, *scamul*, *scalde*, *sculde*, *scân* (pret.), *sceâdan* (or *scêadan*), *scôas*, *oferschade*. Several of these examples are in themselves inconclusive. *Scamul*, as in other texts, might preserve its *a* through influence of the Latin. *Scân* and *scôas* might be alternative forms to forms with the diphthong (compare Aelfric's *Homilies*, *scôas*, *scôn*, two

cases, *sceðan*, *sceðs*, two cases). The *u* in *sculde*, *oferschade*, might be undiphthongized as elsewhere. But *scape*, *sapena*, *ascapep*, *scade*, *scalde*, are, when considered together with these forms and as supporting one another, conclusive with regard to the absence of the diphthongization. Some doubt is cast upon this conclusion by four cases of *sceðdan* (or *scēadan*) with the diphthong ('*gesceadip*', etc.) to but one with *ā*, (*āscādep*.) Bülbring (*Elementarbuch*, § 294) prefers to consider these as examples of diphthongization of *æ* by *i*-umlant. If so, they should be classed with the few isolated cases of diphthongization of *æ* noted above, and would tend to render doubtful the possibility that those cases are not Mercian.

The safest explanation is plainly that diphthongization of gutturals is not represented in the text. As the phonetic nature of *sk* and the testimony of Northumbrian and West Saxon both warrant the conclusion that diphthongization should normally appear at this time, even in a text that shows slight traces of diphthongization in general, a special influence must be assumed. This was probably the influence of Scandinavian *sk*.

Original *j* (II. § 9) demands special attention. It appears as *i* in proper names, and is also unusually common in this spelling in native words: *iū* (beside *gu*); *iungæ*, *-e*; *iugupe*; *ioc*, *Ioc*; '*Iara*' (*olim*). Brown comments, "This lack of pal. infl. seems to be a general characteristic of Mercian." His statement is based on the usual interpretation of the *i*-spelling, as equivalent to *j* simply, whereas it represents the glide as well as the consonant. The form '*Iara*' here attracts attention. It is hardly to be supposed that the West Germanic *a* remains in this word, which must be the case if the initial *i* merely represents *j*. The form is plainly equivalent to West Saxon *geāra*, which the scribe has thus rendered owing to his frequent use of *i*. The form *ioc* must also plainly be equivalent to **gioc*.

geoc. Both forms are due to widening of the mouth-orifice, as explained above. They will be treated more fully under the head of West Saxon.

A further proof of the use of *i* as a diphthongal element appears in the substitution of it for *g* in words from the stem *gearw-* (< **garw-*). The forms (§ 5, b) are *iarwan*, *iare*, *iara*, *ge-iarwad*, *ge-Iarwad*, *Iarward* [-wad], *Iarwede*, beside *gearwe*, *gearwæp*, *foregearwep*, *gearwige*, -ap, *gearwadun*, -e, *gegearwæd*, *gearo*, *gearwunga*, and one anomalous case, *gærwende*. Brown assumes retention of *a* before *rw* in these cases. Other forms in point are *arwunga*, *spearwas*, excluding *naarwe*, which seems certainly a case of "Dehnung des *a* oder verschreibung." Bülbring (§ 132) includes *rw* as one of the combinations causing retention of *a*, instancing *sarwo* beside *searu* in *corpus*, *sparuua* in *Epinal* and *Erfurt* beside *spearwa* in *corpus*, *sarwa* (nom. pl.) and *he sarwap* in the *Harleian Glossary*; also "ähnlich ist in Ru.¹ *a* . . . erhalten . . . oft vor *rw*: *arwunga* 'umsoust', *iarwian* *gearwian* 'bereiten.'" It will be noted that the examples are very few and scattered, and that the greater number are confined to the *Glossaries*, where the orthographic conditions are uncertain, and are there contradicted by variants with the diphthong; further, moreover, the assumed frequency of the occurrence of *a* in *Rushworth*¹ depends only on *arwunga* and the group of forms of the single word, *gearwian*, in question. It seems scarcely possible under these circumstances to assume of the large number of forms with the spelling *iarw-*, beside the equally large group with the spelling *gearw*, that the latter has the breaking and the former not. Furthermore, on such a supposition, it is not plain why *g* is used with precise discrimination in the one case and the *i* in the other. If the initial sound is the same why should not the *g* appear in the group assumed to have *i*? Further, if the

ġ has become so palatal as to be represented by *i*, why should the *i* appear precisely where, according to the hypothesis, the original guttural *a* remains in place of a vowel capable of causing the palatalization of the original *g*?

Granting the force of these objections, it may still perhaps be questioned whether the *ge-* of the forms of the *gearw-* type may not be regarded as a sound approximately *j*, and all these forms be looked upon as having original *a*. The difficulty here is that there is no evidence that the combination is established as a symbol with such a value in the text. It certainly does not represent *j* simply in *geatt* (-), and in the cases with *j* it is present only in *geond*, *begeonda*. Further, the same objection holds here, that an ultra-palatal spirant has to be assumed before *a*, that is in a position where one has the least right to expect it.

Finally, as regards the use of the *i*, the significance of its appearance in '*Iara*' and in *ioe* must be considered, where it cannot represent simple *j*.

In view of these various considerations, the spelling with *i* must be regarded as equivalent to that with *ge*. These forms accordingly confirm the view that initial *i* connotes a consonantal and diphthongal element.

Ge occurs in *geond*, *begeonda*.

G is found in *gê*, pronoun and conjunction, and in *gên*. The adverb *gê* appears in the form '*gæ*', presumably by substitution of the more open sound *æ* for *ê*, owing to lack of stress.

Conditions as regards *j* are, in brief, the same as in the texts already examined, except for the more frequent use of *i* in native words.

3. THE GLOSSARIES.

Dieter notes (§ 27) that in *Epinal* palatal diphthongization appears only in unaccented syllables.¹

¹ As in *birciae*, *fraetgengian*, etc. The *i* in these cases is usually regarded as merely a sign of *ê*, *ġ*. So, for example, Chadwick (p. 228,

In regard to certain forms of *gafol* (*geabuli*, *geabules* of *Corpus*, beside *gaebuli*, *gebil*, *gebles* of *Epinal*, *Erfurt*), Chadwick (p. 227, note) remarks that they may possibly be explained as examples of *u-o* umlaut, "but it is more probable on the whole that *geabuli* is due to palatal diphthongization; the inflexion would regularly be **gabl*, **ǣblæs*, etc.; this has been levelled out by the transformation of **gabl* to **ǣabl* (whence *geabul*) etc." This conclusion does not recommend itself. The word would not regularly syncopate, as Chadwick assumes. Further it would be isolated as a case of palatal diphthongization after *c, g* (compare, e. g. *bigact*). Moreover, the word is undiphthongized in West Saxon.

Exception must be taken to Chadwick's list of cases of palatal diphthongization (p. 228). It includes *uucingsceadan* = *piraticum* in *Epinal*, *-sceadae* in *Erfurt*, *-sceapan* in *Corpus*; *sceab-* in all three; *sceadu* in *Epinal* and *Erfurt*, *sceadugeardas* in *Erfurt*, *scaedugeardas* in *Epinal* beside *scadu*, *sceadugeardas* in *Corpus*. These are rather to be viewed as cases of *u-o* umlaut. With all due allowance for dialectal difference, absence of diphthongization in the *Psalter* is to be taken into account. Chadwick's view is contradicted by the general absence of diphthongization of palatal vowels, which is lacking even after *sc*, e. g. *scaet* in *Epinal* and *Corpus*, *scaed*, *scaer* (*vomer*) in *Corpus*. Moreover all the forms contain the requisite conditions for *u-o* umlaut.

note), "the *i* is probably used simply to denote the palatal value of *-g-*, *-c-*. That it cannot be compared with O. Sax. *-i-* from Germ. *-j-* (after geminated consonants) is clear from its use in the last syllable of Ep. *gimaengiungiae*." This single example, with its possibility of scribal repetition, does not justify so sweeping a conclusion. Retention of *j, i*, as a spoken element after the *ê, ǣ, r*, is simply due to the character of the consonant. It is not plain how the *e* of *stycce*, *here*, can be regarded as other than a remnant of the original *j*. Why else should not *stycce* be *stycce*?

Their relation to general conditions as regards *u-o* umlaut demands consideration. *U-o* umlaut of *a* is rare, but an array of cases appears in *Corpus*, and evidences of it appear elsewhere. Chadwick (pp. 226 ff.) notes *hreathamus* in *Epinal* and *Erfurt*, *hreadaemus* in *Epinal*, *hreadam's* in *Erfurt*, commenting that the word is obscure, and the *ea* possibly *ēa*. Greater importance, he considers, is to be attached to certain forms with *ae*, possibly derived from *æa* by palatal umlaut, as in the numerous cases in the *Psalter*. These forms are *haeguthorn* (*Epinal*), *hagudorn*, *heguthorn* (*Erfurt*), *hea(go)þorn*, *haeguporn* (*Corpus*); *braedlaestu aesc* (*dalaturae: Erfurt*), *braadlastecus* (*Corpus*); *slēgu* (*lihargum: Epinal*), *slægu* (*Erfurt*), *slaegu* (*Corpus*). The last two are dubious and may be set aside. The forms of *haeguthorn* may be due, he remarks, to confusion of *hagu-* and *haeg-*, the latter appearing, in other texts, in *hægþorn*, and in *hægstald* beside *hagustald*. *Corpus* has *ha(e)ca* (*þessul*), *borþdeaca*, *cleadur* (obscure form) beside *Epinal*, *Erfurt* *haca*, *bordþeaca* (also *Epinal* *boro-haca*, etc., *Erfurt* *brodthaca*, etc.), *Epinal* *clædur*, *Erfurt* *cledr*. In *Corpus* alone occur *reagufinc*, *onseacon*, *wæ(g)n-fearu*, *geaduling*, *weagat*, *geuue(ada)*, *aslaecadun*, *naed(a)d tunge*, *hlaegulendi*, *rægu*. *Hæra* (*Erfurt*) may be added (Bülbring, *Elementarbuch*, § 229.3); *baeso*, also cited by Bülbring, cannot be included with absolute confidence on account of the forms with *eo* in *Erfurt* and *Corpus* (see Chadwick, p. 195, note).

The evidence is plainly perplexing, but there is possibly an element of error in Chadwick's view of it, the removal of which may serve to obviate the chief difficulties. He regards *ae*, wherever it occurs, as always due to palatal umlaut. But this is not necessarily the case; the *ae* may be merely an inceptive stage of the umlaut. Thus, beside *haeguthorn*, etc., with *g*, *clædur* (*cledr*), *haera*, *baeso* (?) appear in *Epinal* and *Erfurt*; the *æ* in the latter cases is

not due to palatal umlaut, and there is no necessity for viewing the *æ* of *haeguthorn*, etc., as due to that influence, even though before *g*—it may, in all the cases, simply indicate inception of *u-o* umlaut. So interpreted, the difficulty is quite removed, which Chadwick points out, that “the existence of *haegu-* beside such forms as (Ep. 629) *ragu* would seem to show that there were dialectic differences in the sources of Archetype I; yet for such a hypothesis there is otherwise surprisingly little evidence.” These forms, if the umlaut is indicated merely in its inceptive stages in *Epinal* and *Erfurt*, might readily occur beside one another. As regards *Corpus*, however, a different view must be taken, for the reason that *æ*, except in *hraepemus*, occurs only before *k, g*, and because of numerous cases with *æ*, namely *reagu-*, *hea(gō)þorn*, *bordpaca*, *onseacon*, *weagat*, *cleadur*, *geabuli*, *geaduling*, *geuue(ada)*, *waeg(n)fearu*, beside *raegu*, *haeguporn*, *aslaecadun*, *naec(a)d tunge*, *hlaegulendi*. This would indicate that palatal umlaut is at work, a conclusion which is in conformity with the usual view of the relations, dialectal and chronologic, of this text to the *Psalter*. In the *Corpus*, palatal umlaut of the diphthong is in its inception; in the *Psalter*, it is carried out with consistency. Essential dialectal difference in this regard need not be assumed; in particular, it is not necessary to suppose with Chadwick that the forms with *ae* in *Corpus* were copied from earlier texts, in which *a* before *k, g*, was treated as in the *Psalter*. On the other hand, the relation of *Corpus* to *Epinal* and *Erfurt* is consistent. In *Epinal* and *Erfurt*, if *ae* is not regarded as palatal umlaut, but an inceptive stage of the diphthong, its occurrence beside unaffected *a* is explained (as in *haca*, etc.), and the usual view, that *Epinal* and *Erfurt* show the affection in its inception, appears as the correct one. That *Epinal* should show palatal umlaut, considering its date, is, it may be added, not conceivable.

U-o umlaut, then, inceptive in *Epinal* and *Erfurt*, is carried out through a wider range in the later *Corpus*.

Conditions as regards *e* and *i* do not contradict this. It might be expected that, if *Epinal* and *Erfurt* show affection of *a*, even if only in the stage *æ* for the most part, that the affection should evidence itself in *e* and *i*. But in the case of these vowels, a question of orthography is involved. The diphthong of *e* and *i* (*eo*, *io*), consisting in its early stages of *e*, *i*, followed by a glide, could be quite adequately represented simply by *e*, *i* (*geolu*, *geholu*, the single example with *eo* is not clear). Where however, there is a distinct change of vowel, as in *ae* for *a*, the scribe must take account of it. This he also has to do—a fact that proves *u-o* umlaut of *e*, *i*—in cases in which *weo*, *wio* has changed to *wu*, as in *uusend*, *uudubil*, *sin-uurbul*, *uuluc* (also, possibly, *u(u)slucreud*; compare Chadwick, p. 226) in *Epinal*; also *wy*, as presumptively from *wio*-, in *uuylucscel*, *uuydubliŋdæ*, *uuydumer*.¹

The conclusion reached in regard to the affection of *a* has a bearing upon the cases regarded by Chadwick as exhibiting palatal diphthongization. Reasons have been given for considering them rather cases of *u-o* umlaut. In the light of the evidence that *u-o* umlaut was in its inceptive stage in *Epinal* and *Erfurt*, these forms assume a special significance. They are all cases with initial *sc*, and it may be argued that *sk* has exercised here the same permissive or auxiliary influence as was argued in the case of Northumbrian in these words, that is, the *u-o* umlaut has produced a diphthong, where, in other words, the affection has only reached the *æ* stage. Indeed, here, the *æ* remains in one case, *scaedugeardas* (beside *sceadu*) of *Epinal*, which it is not necessary to explain, with Chadwick, as a substitution of a form with *æ* (< *a* in a closed syllable)

¹ Cited by Chadwick, p. 226; he is not responsible for my explanation of the *wy* as from *wio*.

from **skædwa*. The *scadu* of *Corpus*, beside *sceadugear-das*, is a scribal error or an archaism.

It will be remarked that a certain degree of palatal quality or weakening of guttural quality is indicated by this permissive or auxiliary influence of *sk*. Theoretically, it should have possessed such a quality at this time, and for the *Corpus*, at least, *sc* is demonstrated by the familiar fact (Dieter, § 45), that *sl* appears with *c* inserted in *sclāt*, *asclæcadun*, *asclacade*. That it should possess the requisite quality to permit or aid the development of the full diphthong in conjunction with *u-o* umlaut, and yet not cause diphthongization of palatal vowels, need occasion no question. The case is closely comparable with *g* in the *Ritual*, which assists in an exceptional *u-o* umlaut of *a* (*æ*), but without producing diphthongization of secondary palatals—or in *Lindisfarne*, where palatal diphthongization due simply to *g* is sporadic and dates from a period much later than the diphthongization resulting from cooperation with *u-o* umlaut. The diphthongization of guttural vowels by *sc*, judging from the Aelfredian texts and on the basis of the assumed approximate date of that affection as ruling for all dialects, could not be expected in these texts, and it is not surprising not to find it in the *Psalter*. In *Rushworth*¹, it might certainly be expected, but, as pointed out above, a special influence is to be assumed for its absence.

The testimony of these texts is then as follows. Diphthongization of palatal vowels does not occur. This is to be referred to the same cause as that suggested for the *Psalter*—the *æ* had reached a more advanced palatal stage than the *æ* of Northumbrian (indicated by variation between *ae* and *e*) and therefore shared with *e* an immunity to diphthongization, even after *sk*. In *Erfurt* and *Epinal*, where *u-o* umlaut is inceptive, the vowel *a* passes beyond the *æ* stage in a few cases through the permissive or auxiliary influence of initial *g*, *sk*.

As regards *j*, the vowel remains unchanged in *gêrlīcae*, *gêri* in *Epinal*, and *gêrlīce*, *pysgêre* in *Corpus*. No examples occur with *j* before guttural vowels in *Epinal* or *Erfurt*. In *Corpus*, *j* appears before guttural vowels in *geocboga*, *geocstecca*, *geondsmead*, and presumably *giululing* (*quintus*). These examples call for no comment except to note that they illustrate the fact that the development after *j* was the same in all dialects.

IV. KENTISH.

The texts used are the *Charters* in De Gray Birch, *Cartularium Saxonicum*, London, 1885-1887, as analyzed grammatically by Wolff, *Untersuchung der Laute in den kentischen Urkunden*, Heidelberg, 1893, which contains also references to the *50th Psalm*, *Hymn*, and *Glosses of Cod. Cott. Vesp. D. VI*. The mixed and dubious character of the *Charters* is well known; they afford, however, the only early material available. Wolff distinguishes four groups: (A) pure Kentish; (B. 1) Mercian-Kentish; (B. 2) Saxon-Kentish; (C. 1) documents of Surrey; (C. 2) documents of Surrey and Kent, which are possibly Kentish.

A remains (examples with pre-nasal *a* are not included) in: (A)-*gate* (§ 7; add 272.14); *gatum* (for 317.17, read 273.9; also omit '*caping*,' perverted form of *cēapung*); (B. 1) *gegaderod* (§ 2); (B. 2) *gafole* (§ 2); *gatan*; (C. 1) *shal* (§ 7); *parkesgate*; *gate*¹.

A becomes *æ*, *e*, remaining undiphthongized in: (A) *cæstruara* (§ 2; 282.17, incorrectly cited in § 7); *Cæstruuarouualth* (§ 7); *scæt*; *begæt* (for 583.16, read 15); *forgæf* (562.13; not cited); *cestre* (337.27 not cited); *scel*; *forgef* (§ 29; not cited in § 7)². (B. 1) *-cæster*; *Cæster*; *-cester*; (B. 2) *scæl*; *cestre*; (C. 2) *-caestre*.

¹ Wolff has not been at pains to indicate that the forms in C. 1, in a document dated in his preface 675, stand in a late addition, as the forms show; just above them occurs the name "Sire Geffreus Heþe de la Croix." So similarly p. 52, "In den Urkunden kommt keine Abweichung von *ā* vor, ausser in C. 1." These *abweichungen* are in this same document and are *stone*, *one*, *cholen*. He also forgets that he has noted what he assumes are three cases of *ēa* from *ā* after *ġ*.

² Omit under § 7, *Cent*, *Caent* (C. 2); *Riperscaepe* (for *-cēape*); *gefe* (dat.).

The *æ*, *e*, by *i*-umlaut from *a* remains undiphthongized, except in *forþgesceaft* (as in West Saxon) of the *Psalm*.

Ea results from *æ* in (A) *-geate* (§ 7), *geat* (7.28, cited as *geate*; beside *gate*, *gatum*, four cases); *ongean*¹. (B. 2) *geat*, *geate* (§ 7, beside *gatan* two cases); *ongæn* (II. 132.13, not cited); (*Hymn*) *ceastre*; (*Gloss*, p. 7) "es zeigt sich nie *ea* durch Einfluss eines vorhergehenden *g* oder *sc*."

E is not diphthongized: (A) *agefe* (§ 15), *agefen*, *agebe*; *geld* (*Felogyldus*, 403.26, a Latinized form, is not significant); *gaefe*, *agæfe*; *gefe* (three cases also cited under *a* after a palatal, § 7); (B. 1) *-geld*; *-gete*; (C. 2) *-get*; *-geld*; (*Psalm*) *-gef*; (*Gloss*, p. 4) "stets *e*."

Long vowels are not diphthongized. Of *ê* (West Germanic *ā*), the following examples occur: (A) *scêp* (§ 39), *scæp* (-); *cêses*, *cæs*-, *cyses*. From the document in which the last form appears (II. 107.2, dated 860), Wolff should also have quoted *agyfe* (II. 106.3, 107.3), *agife* (II. 107.19, 21). Special mention is made of these forms here as pointing to an interesting form in No. 463 (I. 560), apparently, in part at least, an earlier form of this document. It is dated 831, 832, but with the exception of a clause between the first and second paragraphs, it would appear to belong to the 8th century. The form of particular interest is *agiaban* (560.8), classed by Wolff (§ 19), no doubt correctly, as a case of *u-o* umlaut.

The cases of *sc* before gutturals are as follows (the examples are gathered *passim*; this category is not specially discriminated by Wolff): before *a*, (A) *scaga* (§ 7); (B. 1) *Scaga* (beside *Sceaga*); (*Psalm*) *scame*; before *ā* (A) 'asceaden' (§ 46); (B. 1) 'sceade'; (B. 2) 'gesceade'; (*Gloss*: *ā*) "nach *sc* bleibt *a* in allen vorkommenden Fällen: *gescadap* 246, *toscad* 1134, *gescad* 1164"; before *o*, in default of an

¹ Omit *Rytherclap* and the Middle English *Rouesciestre*, plainly a late addition. This single form is entered doubly 88.7 (88th document, 7th line), 124.28 (p. 124, l. 28).

example with *o* in an accented syllable, (A) *-biscop* (-) (§ 12); *-episcop*; (B. 1) *bisceopesporn* (§ 29); *bisceopincg dene* (519.6: in the same document as the preceding example); before *ô*, (A) *scôra* (§ 42); before *u*, (A) *scufeling* (§ 33).

The testimony with regard to *c* and *g* is, it will be perceived, meagre and unsatisfactory. Yet it is perhaps sufficient to show that diphthongization was not a feature of Kentish. *Ceaster* occurs uniformly with *æ*, *e* (except in the 10th century *Hymn*); *begæt*, and *forgæf* occur in 9th century documents; and two cases of *geat* occur without diphthongization in a grant of Aethelberht, dated 605.

Beside these two cases, two occur with the diphthong (*supgeate*, *bradgeate*) in an alleged document of *Aethelberht*, dated 604 (p. 7). The only English in this document runs as follows: "Hic est terminus mei doni: fram supgeate west andlanges weallas oþ norþplanan to stræte & swa east fram stræte oþ doddinghyran ongean bradgeat." This passage can hardly be of the date set. The grant, as a whole, must be considered dubious, as differing from others of the same king and year. There is no signatory clause for the king as in two, and in all the others the witnesses sign or (in one) are mentioned by name, while this closes, "Hoc cum consilio Laurencii episcopi et omnium principum meorum signo sanctae crucis confirmari, eosque jussi ut mecum idem facerent. Amen." The signature is lacking; the boundaries are, in the others, given in Latin; in general there is a marked difference in style. It may also be noted, for what it is worth, that the king's name is spelled *Aethelberht*, while in the others it is spelled *Aethilberht*.

The testimony in regard to *sc* before gutturals does not afford results of a positive character. The forms in A, *scaga*, *asceâden* (or *ascêaden*), *-biscop* (*-episcop*), *scôra*, *scufeling*, show a glide only in *asceâden* (or *ascêaden*), which belongs to the second half of the 9th century and may be

a West Saxon form. The *Gloss* shows no glide in this word. The Mercian-Kentish group show a form *Sceaga* (258.26, dated 755) beside *Scaga* (358.28, dated 789); *scādan* has the diphthong in 'sceadeþ' (467.38, dated 811); two cases of *bisceop* also show the glide (518.43, 519.6, dated 824). The group, B. 2, also has a form 'gesceadeþ.' The question of the genuineness of the charters, the accuracy of the dates, the possibility of West Saxon influence in the 9th century and of Mercian before, together with the sporadic nature of the affection, even in West Saxon, up to the close of the 9th century, render the evidence uncertain and valueless. The form *Sceaga* in the Mercian-Kentish group, while theoretically possible at the date assigned for the document, 755, though somewhat early, is in the highest degree unlikely.

The cases with *j*, aside from certain quasi-Latinized proper names (in A) *Jaenberhtus*, *Jaemberhti*, *Jambertus* (§ 7); in B, *Jaenbeorhtus* (§ 16), *Jaegnlaad* (§ 7), with an anomalous *Gaenbald* in A, are few.

Before *u*, the following cases occur: (A) *Godgeocesham* (§ 60); *gioc*; *iocled* (§ 33); *iocleta* II. 158.6; (B. 1) *geocled*; *ioclet*. Wolff says (§ 60), "Vor dunkelen Vokalen erscheint in den Urkunden nur ganz selten ein *e*; die wenigen Fälle sind: *gioc* (aus *juk*) *Godgeocesham*." The additional cases in § 33 he does not cite here; at that place he speaks of them as "undiphthongiert." According to the view urged above, the *i* connotes a diphthongal element.

Wolff also does not cite in § 60 the forms in the *Gloss* cited under § 33: "giogeþe . giohþhade . gionne; *geokommt* so nicht vor. wohl aber steht *iunges*." (p. 8)."

Gêar appears in A (§ 39) as *gêre* 560.7 etc.; and in a late grant (II. 107.19,20 as *gêare* (2) beside *gêre* (2). The regular Kentish form was presumably *gêr*, and the forms in this grant are a mixture of Kentish and West

Saxon, or are entirely West Saxon, the form *gêre* being due to monophthongization. Further comment is unnecessary. It may be safely assumed that diphthongization was not native to Kentish, and it is probable that diphthongization of gutturals had made no great advances during the greater part of the 9th century, as it did not in West Saxon according to the evidence of the Aelfredian texts. The question whether the scanty evidence the texts afford is trustworthy is also to be kept in mind. It is highly unlikely that the *Charters* represent vernacular conditions, owing to Mercian and West Saxon influence. Further, there was widespread sophistication of the early charters. The testimony of this material must unfortunately always be under suspicion¹.

¹Since the above was written, Chadwick has commented upon this point (p. 182). Noting the marked differences between the earlier and later charters, he is inclined to assume Mercian influence until 823, and then a renascence of the native dialect, which accordingly appears in the charters after that time. This, he says, shows affinities with the West Saxon. He does not apparently consider that West Saxon influence must have succeeded the Mercian after the time of the Mercian downfall. This language of the charters in this later period would seem much rather to represent West Saxon and native conditions mixed, just as that of the previous period represents Mercian and native conditions mixed.

V.

WEST SAXON.

The texts are those used by Cosijn in his *Altwestsächsische Grammatik*, Haag, 1888, namely the *Cura Pastoralis*, *Orosius* and *Chronicle*¹.

A remains (pp. 1-4) in *gafol*; *caru* (cf. *cearu*, p. 12); *gatu* (2; *Chron.*); *calendas*; *landscare* (acc. sing.), *scare* (*Chronicle*, 716); (*ge*)*gaderian*, *gaderap*, (*ge*)*gadrian*; *gecafstrod*; *carcern*, *karkern* (with *cearcern*, p. 12, by breaking); *carbunculus*.

Of cases in which *æ* is retained after palatals, Cosijn says (p. 5): "Nach palatalen erscheint *ea*, ausgenommen ist *scæl* (debeo) 062.9. 0100.15. sonst *sceal*" (but note also *scæl* 0246.27. cited p. 13 under examples of *e*, *æ*, *e*, for *ea* by 'breaking' and II. p. 196); (p. 6) "*Gæ* [vor einfachem consonanten + *e*] begegnet nur in *gæderap* (colligit) 463.34, sonst *gaderian*, aber constant *æt*gæddre 457.15. = *æt*gædere 090.8. 0132.2. etc. und *togædre* 08.11,13. 0102.31. = *togædere passim* im *Orosius*"; (p. 7) "*Gæ* [vor doppelten oder mehrfachem consonanten, ausser *h* oder liquida + cons.] findet sich nur in *gæglbærnes* 73.11, also mit *æ* aus *ai*?" (the *æ* is presumably late *æ* due to a variant **gagl*-).

Secondary palatal vowels are not diphthongized except in a few cases after *sc*, treated below. It is unnecessary to cite the cases in which *ea* is due to breaking.

Æ from *a* becomes *ea* by palatal diphthongization, with

¹ Where necessary, Cosijn's ingeniously brief system of notation is employed; the *Cura Pastoralis* is cited by number, the *Orosius* by a cipher prefixed to the number, and the *Chronicle* by name. Citations from the grammar are to the first part and are made usually by the page, because of the length of the paragraphs. It will not generally be necessary to indicate correspondences of the texts of the *Cura Pastoralis*; differences will be indicated when important.

a few cases of *e* by monophthongization, in the following: *sceapen* (p. 1); *sceade* (p. 2); *geaf* (p. 7), beside *forgef* (p. 13); *begeat* (p. 7) beside *forgêt*, *-get*, *onget* (p. 13); *geate*, *geata*, *geatum* (p. 7); *ceaf*; *ceaster*, beside *cester* (1; p. 13); *sceabb* (p. 7); *sceal passim*, beside *scel* and beside *scæl*, *scēl*, noted above; *sceat*; *unsceapfull* (beside *unsceapfullice*, p. 13); *scearseax*; *ongeagn*, *an-*, *ongean*, *ongēan*, beside *ongen*, *togeanes*; *scearum* (p. 84); (-)*sceaft* (discussed below). *Cearu* (p. 12) is also to be added to this list, beside *caru*; the form is not necessarily due as Cosijn (p. 12) and Sievers (§ 103. n. 2) say to *u-o* umlaut, but may well be due to diphthongization in the oblique cases of the singular.

The cases of *ie* from *ea* by *i*-umlaut are as follows (p. 34): *giesphus*; *sciell*, beside *scyll*; *hlafardsciepe* (elsewhere *scipe*; not a true umlaut form, but simply scribal by influence of the verb, as *-scip* without doubt comes from a West Germanic form with *i*); *Sci(e)ppend*, beside *sceppend*; *besciered*; *ciefes*; *ciele*, beside *cele*, *cile* (p. 63).

Diphthongization of *ê* appears in *scêap*; *scêare* (pret. conj.); (-) *scêaren*; (-) *gêafe* beside *gêfe*; *-gêafon*; (-) *gêate*, (-) *gêaton*. Secondary *ê* is undiphthongized in *cêg* (p. 85). Diphthongization however appears in *toscêat* (p. 106). *Ê* from *ô* by umlaut (p. 63) is not diphthongized in *kêlnes*, *gēcêlan*.

The cases with unaffected *a* after *c*, *g*, include the loan-words *carcern*, which preserves its *a* beside a less frequent form with breaking, and the later *gecafstrod*, *carbunculus*, which entered the language too late for either breaking or palatal influence. *Gecafstrod* is apparently a variant unaffected by *i*-umlaut, beside *cæfester* of the *Epinal*. *Gafol* and the forms from the stem *gadr-* show no diphthongization in contrast with the *Ritual* and *Lindisfarne*.

The cases of diphthongization of *æ*, *ê*, except for *scæl*, *scēl*, (-) *sceaft*, referred to below, do not call for comment.

Similarly, the cases of *ie* from *ea* by *i*-umlaut are uniform and regular, except *cele* and *sceppend*, which are treated below. That diphthongization took place in West Saxon prior to *i*-umlaut seems reasonably certain. *Sceppend* and *cele* with *scell* are cited by Bülbring (*Elementarbuch* § 181, note) as forms illustrative of a group of exceptions without *ie*, which with cases of undiphthongized *ae*, *ê*, in the *Harleian Gloss* and elsewhere, afford evidence of the existence of a *patois* in West Saxon. The general subject is examined below in connection with the forms having *sc*.

The conditions under which diphthongization after *sc* occurs are here, as elsewhere, of special interest and importance. The cases fall into three groups according as the *sk* was followed (I) by primary *æ*, *ê*; (II) by a secondary palatal vowel; (III) by a guttural vowel. Use is here made of Rehm's *Palatisierung der Gruppe 'sc'*, in which the forms in a number of representative West Saxon texts (the *Cura Pastoralis*, *Bede*, *Blickling Homilies*, Aelfric's *Homilies*, *Grammar*, and *Pentateuch*, and the *Gospels*) are given in detail.

I. Diphthongization of *æ* < *a* in open syllables, followed by a palatal vowel (§ 1. b), is uniform. The *Cura Pastoralis* has *sceare* (pres. conj.), *gesceapen* (10); the *a* of *landscare* is due to forms with a guttural vowel in the second element. Bede has *gesceapen* (10) beside the erroneous or Mercian form *gescepen*; *sceare* (14) from *scearu* beside *scare* (2); *scafe* from *sceafan*, pointing to a form *scafan* (compare *scafeþa*, 2 cases). The *Blickling Homilies* have *gesceapen*. Aelfric's *Homilies* have *gesceape*, *gesceapen* (74). The *Grammar* has *sceace* (6) beside *scæce* (10), *excutio*, with *æ* from the 2d and 3d persons, *scace*; *gesceapen* (26) with *gescapena* in O. The *Pentateuch* has *asceacen*; *gesceapenis*, *gesceapen*; *sceare*.

The examples of *æ* in closed syllables, as given by Rehm (§ 1. c) contain a number of forms that properly

belong elsewhere. The few clear examples are *sceabb*, *sceat(t)* in *Cura Pastoralis*; *orsceattinga* in *Bede*; *sceatt* in the *Blickling Homilies*; *sceadwung*, *sceadwian*, *sceatt*, in Aelfric's *Homilies*; *sceatt* (*scett* by monophthongization) in the *Pentateuch*; *sceadwian* in the *Gospels*. *Sceafpa* in *Bede*, beside *scaefpa*, *scefpa*, is possibly an umlaut form, with post-umlaut diphthongization, and will be discussed later. *Scædom* in the *Pentateuch*, is, according to Skeat (*Anglo-Saxon Dictionary*, s. v.) for *sæcdom*. The special forms (-) *sceaft*, *-sceap-* (in *unsceapfullice*, etc.), *scæl*, *scēl*, *scel*, *scall*, beside *seal*, are discussed below.

In this first group belong the examples of pre-umlaut *ea* affected to *ie* by *i*-umlaut. Rehm's list (§ 1. f.) includes many (e. g. those having pre-nasal *a*) to be treated separately. Apart from these, the examples include *scieppend*, *scippend*, *sciell*, *gesciered*, in *Cura Pastoralis*; *scyrian*, *scerian*, *scyppend*, *sceppend*, *scyll*, *scyrū*, *sceppan* and compounds, *scæppan* and compounds (with *sceappiendra*), in *Bede*; *scylfring*, *scyppend*, *sceppend*, *scyrian*, *sceppan*, in the *Blickling Homilies*; *unsceappig* beside *sceappig* and compounds, *scyppan*, *scyppend*, *scyrian* in Aelfric's *Homilies*; *scyppan*, *scyppend* beside *sceppan*, *scyll*, *scyran*, *sceappig* beside *sceppig*, *scæppig*, in the *Grammar*; *scilla*, *sciran*, *scippend*, in the *Pentateuch*; *stanscylig*, *sciran*, in the *Gospels*¹.

The variation between *ie*, *y*, and *e*, *æ*, is significant. It may be treated more conveniently in connexion with the general development of *sc*.

In Rehm's texts, only one case of *ê* (West Germanic *â*) occurs, namely *scêap* in the *Cura Pastoralis*. *Bescêaren* in *Orosius*, 204.8, may also be cited.

II. The group of forms with diphthongization of secondary palatals after *sk* is of special interest. The cases (in-

¹ Why Rehm should have included (*ge*)*scierpan*, *scylcen*, *scemul* in his list is not apparent.

cluding those given by Bülbring, *Elementarbuch*, §§ 288 ff.) may be conveniently divided as follows:

1. (a) $ea < \text{æ} < a$ by umlaut: (-) *sceaft* beside (-) *scæft*, (-) *sceappig* beside (-) *scæppig* (ib. § 293 b); *sceapian* beside *sceppan*; *sceafpa* beside *scæfpa*, *scafpa*. (b) $\text{ê}a < \text{ê} < a$ by umlaut: *scêap* beside *scêp*, 'sheath' (ib. § 293), *scêanan* beside *scênan* (ib.), *toscêat*, and possibly *gescêad* (-) beside *gescād* (-).

2. (a) $ie < e < a$ by umlaut: *sciendan* (*scýndan*, *scindan*) beside *scendan*. (b) $\text{ŷ} < \text{î}e < \text{ê} < \text{æ} < \text{ô}$ by umlaut: *gescŷ* (ib. § 291).

These examples afford satisfactory evidence of diphthongization after *sc* subsequent to *i*-umlaut, though one or two are dubious, and though the conditions in the several cases are not the same and demand separate examination.

Bülbring, in accordance with the usual view, does not admit (-) *sceaft* among his examples under this category in his *Elementarbuch*, treating it as a case of the usual diphthongization of æ (ib. 152, note), though at one time he entertained the view that the word, at least in Northumbrian, had undergone umlaut (*Anglia Beiblatt*, 9,77). He recognizes the possibility of the retention of *a* before *ft* (cf. *Elementarbuch*, § 127, "Belege für erhaltenes *a* vor *sp* und *ft* fehlen zufällig"), but was probably influenced by his view regarding the absence of diphthongization in the special *patois*, which he assumes (cf. ib. § 152, note). The question whether or no the word was umlauted turns on the view taken of the retention of æ in words in which a consonant-combination stood between the stem-vowel and the umlauting element. Sievers's view (§ 89.2) is that the stem-vowel had become æ and that this æ was unaffected by the umlaut. Bülbring notes (§ 169, note) that the explanation of the retention of æ is still dubious, and remarks that, whether or no æ or *e* is the normal development,

levelling from associated forms must be assumed (cf. also *Anglia Beiblatt*, 9,93). Chadwick's view (*Studies in Old English*, p. 155) is that the *æ* may be quite regular here; that only guttural and semi-palatal vowels seem to have been affected by *i*-umlaut; that the 'absence' of umlaut in *dæd*, *læce*, etc., and *fæstan*, etc. may be due to the fact that *æ*, *ê* were so far palatal as to prevent the operation of *i*-umlaut. "It is quite conceivable," he says, "that, at the time when *i*-umlaut began to operate, the vocalism of Germ. **fastian*- etc. had become identical in quality with that of **dēdi-z*; for since the palatalization of *-a-* took place both in open syllables before *-i-* (e. g. in **mæti* < **mati-z*), and in close syllables (e. g. in *dæg*), it is likely enough that when both conditions were present, as here, the palatalization proceeded still further." It is hardly possible to accept this hypothesis of an *æ* of extreme palatal value not assimilated in other respects to the *i*, namely to an *e*-grade; it is not clear under such an assumption how *æ* in any case became *e* by umlaut, as it must have passed through a range of *æ*'s of varying grades, and, according to Chadwick's assumption, the affection would have ceased on reaching a certain grade, as being too palatal for the vowel to be farther affected.

A point in Chadwick's argument may be touched upon briefly before pursuing the subject immediately in hand. He says it will be noticed that the *æ* of *fæstnian*, etc., may have been, like the *ê* of *dæd*, *læce*, etc., so far palatal as to prevent *i*-umlaut—that is, he regards this *ê* (< West Germanic *ā*) as ultra-palatal, and therefore immune. On what grounds? Presumably because West Germanic *ā* has changed pretty much everywhere to *ê*, apparently irrespective of position. But this does not prove it ultra-palatal, rather the contrary, for it is not probable that a vowel originally not palatal would become ultra-palatal irrespective of position. Some special cause must be dis-

covered for this general change to palatal quality. The current view is that held by Bülbring (*Elementarbuch*, § 129; and compare also Sievers, § 57.2, note 3, both based on Kluge, *Anglia Anz.* 5, 82), namely that this *ā* remains normally before a homorganic consonant (namely a guttural or labial consonant), except where analogy has caused it to change to *æ̃*, but that before a dental, it changes uniformly to *æ̃*. This view, while stating the conditions with essential correctness, seems in error in the fundamental assumption involved. It assumes namely that the sound (for no assigned reason) has a direct predisposition to become *æ̃* and does not do so, only when a homorganic consonant checks the affection, the affection running its course when a dental follows. But why should the sound possess this disposition to become palatal? If such a disposition existed, why did not short *a* show it also? The preferable view should be, to avoid ungrounded assumptions, that *ā* tended to remain *ā*, except before a non-homorganic consonant, namely a dental, and that here for some reason to be ascertained, it tended to become palatal. This may seem to be only a matter of form of statement, but the distinction is worth making. It helps, indeed, toward a discrimination of the real reason for the change and for its wide extension.

The affection of *ā* to *æ̃* (the *ā* < West Germanic *ā* only is meant, naturally) is closely comparable, and has indeed been compared, to that of short *a* in becoming short *æ*. It was of like kind and due to the same causes, and indeed took place at approximately the same time, though presumably its inception was later. A comparison of the two sounds is justified. According to this view, the *ā* would become *æ̃*, precisely where *ǣ* becomes *æ*. This was the case, but undoubtedly, as Kluge (*Anglia, Anz.* 5, 2) and Bülbring (l. c.), pointed out, the influence of analogy has to be considered, no matter what explanation is offered.

The long *a* obeyed the same rule as the short *a*'s, but as it happened, a large number of these long *a*'s stood in positions in which they were peculiarly subject to analogy. In the fourth and fifth rows, they were under the influence of the preterit singular with *æ* and *ê*; in the reduplicating verbs, the vowel was carried back from the weak preterits. But in the case of weak nouns and of a verb like *lācnian* or a noun like *ācumba*, in which the *ā* is not subject to such analogy, the *ā* is preserved. In the case of strong nouns, the normal *ê* of the present was carried usually through the plural, a point to which we shall revert in a moment—the normal *ā* of the plural is however sometimes retained.

The point of difference is this. Bülbring's form of statement is that *ā* is retained before a labial or velar consonant + guttural vowel; "Dentale verhindern dagegen die Wirkung, so dass vor ihnen wg. *ā* stets in *ê* übergegangen ist." There is not, however, an actual influence upon the vowel; the influence of the dental is felt only in so far as it assists and ensures the influence of analogy. As it is, cases with a dental occur only where the effect of analogy is to be assumed. In brief, we have a phonetic development precisely like that in the case of *ǣ*, only influenced extensively by analogy.

When now the quality of the *ê* is considered, we have, according to this view, no right to assume for it ultrapalatal quality. In this relation, its length is to be considered. There is a disposition at present to disregard length as a factor in phonetic change, and to argue that a similar change may take place in a long as in a short vowel. This may perhaps in individual cases be true (though it is far from proved), but, if so, only in individual cases. In the nature of things, the length of a vowel must be an essential factor in preserving its integrity—in restraining a change that would go on with greater rapidity

in the case of a short vowel. In the present case, it may be argued accordingly that the *ā* yielded more slowly to palatal influence than *ǣ*. It did become *æ̃*, but an *æ̃* less palatal than the *æ* from short *a*. A proof of this may be seen, indeed, in the manner in which its extension has been effected by analogy. In the case of the short *a*, there was no such influence. Analogy, it must be remembered is a slow process, slower than phonetic change; it does not begin to work until a condition of difference is established, and then at best very slowly. In the case of the short *a*, a marked difference was established between the *a* and the *æ*. Their main categories of occurrence were indeed grammatical—the *æ*, for example, in the run of strong nouns, belonged to the singular and the *a* to the plural. Analogy led to their levelling only exceptionally. But as argued above, the *æ̃* was, because of its length, only slightly palatal—there was less difference between it and the *ā*. As a result, analogy caused it to supplant the *ā*, especially where a non-homorganic consonant assisted the extension by its preference for the *æ̃*. As a result, to take the special case already referred to, it is extended into the plurals of strong nouns, though here also the original *ā* sometimes remains.

The bearing of this conclusion upon the *i*-umlaut of *æ̃* is plain. The vowel must not be supposed to be too far palatal for umlaut to work upon it. On the contrary, being less palatal than the *æ* from short *a*, and further being less subject to affection by reason of its length, while it was undoubtedly affected by umlaut, it was not so far affected as to require the resulting vowel to be orthographically represented by the spelling *e*. The sound falls in, in its spelling, with the *æ̃* from *ā* from *ai* and the *ā* from West Germanic *ā* before *w*.

The question originally proposed was why *ǣ*, followed by two consonants, umlauts to *æ*, instead of to the *e*

that might have been expected. An explanation may be suggested, in this connection, which seems to accord measurably with the facts. In the case of words in which a single consonant followed *ǣ*, the *ǣ* was in a closed syllable and became *æ* and, by umlaut, *e*, e. g. **tal'jan > *tællian > *tellan*. The question what took place when two consonants followed depends upon the nature of the combination. But the combinations occurring in this position were by origin, except in a very few cases, of a nature to be tautosyllabic. Consequently, in accordance with the usual partition after a short vowel, they were carried over to the second syllable, in which *j* had become *i*, e. g. *fa'stlian*. The vowel was in an open syllable. Here it remained as *a*, for its affection by the *i* was prevented by the barrier of two consonants till late, that is, its umlaut is comparable to the affection of *a* to *æ* by a palatal vowel in the next syllable at an earlier period. It starts from an *a*-grade and is therefore affected normally only to the *æ*-grade. By this explanation it becomes comparable to the *a* before nasals, which becomes *æ*, being however heightened to *e* in the 8th century. It also becomes comparable to the short and long *æ*, from *o*, *ô*, which later unrounded to *e*, *ê*.

If this assumed partition of syllables is correct, we should find *a* in words with tauto syllabic combinations following, where umlaut conditions are not present. Such an *a*, of course, appears in the familiar examples cited in the grammars (cf. Sievers, § 10), *asce*, *flasce*, *wascan*, *wrastlian*, *brastlian*, etc. That examples of other combinations than *sc* and *st* do not appear is not probably accidental (as Bülbring says of *sp* and *ft*, compare above). The question of the syllabic partition in nouns is affected by the fact that a large majority were early rendered monosyllabic in the nominative and accusative singular, or as well in the nominative and accusative plural; also, the syllabic

partition might be affected by the nature of the following syllable; also, levelling between noun and verb forms was inevitable. Thus *hæft*, monosyllabic in the nominative and accusative singular, might readily have been pronounced *hæ' fles*, *hæ' fte*, in the oblique forms, while, in the plural, *hæf' tas*, *hæf' tum* might have varied with *hæ' fta*s, *hæf' tum*.

The examples of *æ* by umlaut before consonant groups may, apparently, be satisfactorily explained in this way. Sievers's list (§ 89.2 and note) is representative; it includes cases with *sc* (*æsc*, *ligræsc*, *pwæscan*), *sp* (*aespe*), *st* (*fæstan*, *-hlaestan*, *mæstan*), *ft* (*hæftan*), *fs* (*ræfsan*; also *wæfs* in which initial *w* is to be considered), *fn* (*stæfnan*), etc. Over against these, *e* is occasionally found in *efnan*, *stefnan*, and uniformly in *eft*, *rest*, *restan*, *esne*, *stefn*. The *e* in *eft* may be due to the frequency of its use, and in the forms with *fn* to the fact that the combination is not truly homorganic; so also *sn* in *esne* and *mn* in *stemn*. *Rest*, *restan* may perhaps be due to frequency of use; the appearance of *e* in some cases is naturally to be expected, and especially in words frequently used, as frequency of use would enable the operation of the umlaut to be carried out.

Næglan owes its *æ* to *naegl*; *e* is to be expected before this combination as in *egle*, *eglan*. *Fæpman*, *faepmian*, is due to the noun. The vocalism of *braegden*, included by Sievers, and explained by Cosijn as a case of the combination *-agdi-*, is not clear.

This same principle may be applied to *giest*. The word has always caused difficulty, chiefly as regards the initial stop in Middle English, which cannot be satisfactorily explained as due to ON. *gestr* (see *guest* in the *N. E. D.*). According to the explanation just made, it is possible to assume a form **gast* beside **gæst*. The second of these affords by umlaut, through **geast* the form *giest*; the first

gives *gæst*, found in the poetry, and possibly, by further development of the umlaut, another variant *gest* (as in the *gesthus* of Aelfric). The *g* of the undiphthongized forms was extended to the less common forms with *ie, y*, whence M. E. *gust, gist*.

Finally, this principle may be applied to the word which was the starting point of the discussion, *scaeft*. By this view, it would represent umlaut of an original **scaft* with diphthongization of the secondary *æ*. This would remove it from the group of *i*-stems, classed as exceptions in not displaying umlaut, and bring it into line with the *gescaeft* of *Rushworth*¹. It remains to be noted of (*ge*)*scaeft*, as beside (*ge*)*scaeft*, that its use is more widely extended than is indicated by Bülbring's citation of the *Harleian Gloss* (*Elementarbuch*, § 152, note). Rehm (p. 10) records a case in the *Cotton MS.* of the *Cura Pastoralis*, *gescaeft*, 200.18; also *scaeft*, 56.4 H, 257, I J, of Aelfric's *Grammar* beside *sceft*, 56.4 in eight MSS. (presumably due to monophthongization). This possesses some significance in connection with the discussion of the *patois* below.

Bülbring's explanation of (-) *sceappig* beside (-) *sceppig* (§ 178, by reference from § 293 b), to which we may also add *scaepþig* and compounds¹ is plainly correct, namely that the noun, *scapa*, precluded pre-umlaut **skæppig* with *æ*, or continually reformed it to **skapþig*. Hence diphthongization did not take place till after umlaut. The same development may be surmised in the case of *sceapan*, *sceapian*, beside *sceþpan*. These are usually explained as late formations, as indeed they are, but not in the sense intended. They are apparently true cases of post-umlaut diphthongization, the development being **skapjan* > *skæþpan* > *sceþpan* > *sceapan*, *sceapian*. This is proved

¹ See Rehm, p. 18: Aelfric's *Homilies*, *sceappig* and compounds I. 142.8, etc., 40 cases beside *unsceappig* I. 142.10; *Grammar*, *sceppig*, 253.16 in 9 MSS.; *scaepþig* 63.15, etc., 19 cases; *sceappig*, 63.15 U, 253.16 W.

by the forms *scaepþan* and compounds in *Bede* (see Rehm, p. 18). We may confidently argue that this *scaepþan* is the associated variant of **sceapþan*, and so add *sceapan*, *sceapian*, to our list of cases of post-umlaut diphthongization.

Another word which apparently belongs in this class is *sceaþpa*, *scæþpa*, *sceþpa*, in *Bede*, recorded by Rehm under the head of *a* in closed syllables (p. 10) as *sceaþp* (sic), 30.6, 156.6, 204.32; *scæþpa*, 192.13, 282.8; *sceþp* (sic), 156.6, 192.13, 282.8; also, under the head of *a* in open syllables (p. 6), *scafeþa*, 156.6, 192.13. The cases with *æ*, *e*, may be explained as due to umlaut caused by a variant ending *-þa*, beside the *-opa* of *scafeþa*, *sceþpa* resulting from **scaefþa*, and *scæþpa* from **scafiþa* with *a* through influence of *scafoþa*. It becomes accordingly probable that *sceaþpa* represents post-umlaut diphthongization of *scæþpa*. This recommends itself rather than to suppose it a syncopated form of **sceafoþa*, with a glide before *a* due to *sz*.

The group of forms 1. b, with umlaut of *ā*, seem to be satisfactory cases of post-umlaut diphthongization. Theoretically, *toscēat* (*Cura Pastoralis*, 453.17, not recorded by Rehm), beside *toscādet*, might owe its diphthong to forms with *eā* from *ā*. *Gescēad* (-) beside *gescād* (-), has of course less evidential value (cf. Bülbring, *Anglia Beiblatt*, 11,91). On the face of the evidence, the word would have *eā* from *ā*, and Bülbring assumes two forms *gesceād* (-) and *gescēad* (-). The existence of the latter is certainly confirmed to some degree by the monophthongized form *gescēd* (-) though this could come from *gesceād* by change of stress in the diphthong. If, however, *toscēat* and *gescēad* are strictly speaking, ambiguous, there can be no question of the remaining cases, *scēap* and *scēanan*. In 2, the vowel is not affected till it has reached the form *e*. The *a*, with *o*-color, of **scandian* umlauted to *æ*, which became *e* by influence of the nasal and was then diphthongized to *ie*. The only

difficulty as regards this case is presented by the parallel word *scencan*, which does not show parallel forms **sciencan*, **scincan*, **scyncan*. The supposition that the *a* in *scencan* had more of *o*-quality and so remained longer, being affected neither to *ea* or *ie*, till the tendency to diphthongize was concluded, on the strength of *stænc*, *ængel*, in Aelfred, is precluded by *scændan* in the Cotton MSS. II. 164,5, etc. (see Rehm, p. 17; Bülbring's statement, § 171, note, needs correction). The simple explanation is that there are only these two stems, and the affection is of a character to be sporadic, owing to the nature of the development of *sc*, and the possibility of its development to *sċ* (see below). The remaining example, *gescŷ*, is clear.

III. The examples of *sc* before gutturals are, unfortunately, not as numerous or as decisive as might be wished, especially in the earlier documents. They are, however, fairly conclusive.

I. *a* (except pre-nasal *a*): The examples with *a* include (Rehm, § 1 a) *sc(e)acap* (139.19 omitted by Rehm), *sceadu*, *ofersceadap*, *scearum* in *Hatton*, *sceacap* (139.19; omitted), *ofersceadop*, *scadu* in *Cotton*. *Bede* has *sceapena* (all manuscripts), *scafepa* (2 B); *scafe*, *scare* in B (Rehm, p. 7), point to *scafan*, *scaru* (a number of cases of 'scearu' cited by Rehm are not in point, the form in each case being *sceare*). The *Blickling Homilies* have *sceapa*, *sceapum*, *sceapena*. The *Homilies* have forms of *sceacan*, *sceadu*, *gesceapu*, *sceapa*, over against one case of *scadu*. The *Grammar* has *sceacan* (references omitted, and reference belonging to *sceadu*, also omitted, attributed to it), *sceadu*, *-scafa*, *sceapa*, *sceara* (*forfex*), beside *scapa* in R, *scalu* in all manuscripts. The *Pentateuch* has *sceacan*, *gesceapu*. The *Gospels* have *sceacan*, *sceapa*, and two monophthongized forms *scecap*, *scepan*. The early examples, *sceadu*, *ofersceadop*, *-ap* (stem, *sceadw-*), *sceacap* (influence of 2d and 3d persons singular), are all dubious, except

the forms of *sceapa*. But this word and (on the whole) *sceaca* are satisfactory evidence of fairly general diphthongization of *a* in the Aelfredian texts, a conclusion corroborated by the testimony in regard to *ā*.

2. *ā* (Rehm, II. § 1 a): The undiphthongized and diphthongized forms of *scādan* stand, in the *Cura Pastoralis* in the relation, *Cotton* 3: 6, *Hatton* 5: 8; similarly *gescād(-)*, *Cotton* 1: 4, *Hatton* 5: 45. *Bede* for *scādan* has the relation: T, 1: 6; B, 3: 6; O, 0: 6; Ca, 0: 8. *Gescād(-)* appears in every case with the diphthong in all manuscripts. *Scān* appears beside *sceān*: T, 6: 0; B, 7: 0; C, 2: 0; O, 0: 6; Ca, 1: 7. The *Blickling Homilies* have one case of *scān* beside one of *sceān*. Aelfric's *Homilies* have *sceādan*, *gesceād(-)*, *sceān*, in numerous cases (*scēa*, listed by Rehm, does not belong here). The *Grammar* has *sceādan*, *gesceād(-)*, with a few cases of *gescād(-)*. The *Pentateuch* has *scān* (1), *gesceād* (1). The *Gospels* have *gesceād*, *sceān* with *scān* in one case in A, B, and C.

The forms in the Aelfredian texts confirm the conclusion that diphthongization of *a*, *ā*, was fairly general. Special attention should be given to the forms (Rehm, p. 36) *gescēdwise* 281.11, 381.21 in *Hatton*.

3. Pre-nasal *a*, *o* < *a* (Rehm, I. § 1 d): The examples here (*scamu*, *scamian*, *scand*, *sceamul*, etc.) need not be specifically designated, as they are wholly unambiguous. Rehm gives the statistics as follows: The *Cura Pastoralis* has *sca*: *scea*: *Cotton*, 77: 1, *Hatton*, 75: 7; *sco*: *sceo*: *Cotton*, 7: 3, *Hatton*, 8: 1. *Bede* has *sca*, *sco*, 7; *sceo*, 9. Of the 9, 6 are in the latest manuscript, Ca, while the older manuscripts have 14 cases without and only 3 with the glide. Aelfric's works show *ea* preponderatingly, and the *Gospels* exclusively except in two cases of *scamul*. Rehm notes that it is interesting that this word should appear (in the various texts) 17 times without, and only 5 times with, the glide. This is plainly due to etymologic

spelling (cf. *scamel* twice recorded in twelve and five MSS. respectively).

4. *O* (Rehm, I. § 4). Rehm remarks (p. 25), "Bunter ist das Bild im ws.: hier stehen 598 *sco* 1272 *sceo* gegenüber." The distribution of these forms is however of importance. In the *Cura Pastoralis*, Cotton has *scolde*, etc., 13 (also *sculdon*), *sceolde*, etc., 95, with *scofen* (2), *wip-scorap*, *scoren* (2), *scort* (2), undiphthongized; Hatton has *scolde*, etc. (also *sculdon*), 77, *sceolde*, etc., 64 (also *sciolde*; *scioldon* is given without a reference), with *gescot* (2), *scoten* (2), *wipsceorap*. Bede shows much the same relation, *scolde*, etc., T 48, O 3, B 10, Ca 6 (also *scalde*), *sceolde*, etc., T 47, O 87, B 89, Ca 93; *scofen*, T 1, B 1, O 1, *sceofen*, Ca 1; *scoren*, 88, *sceoren*, O 1, Ca 1; *Scottas*, etc., T 34, B 60, O 33, Ca 53, *Sceottas*, etc., T 2, O 3, B 1, Ca 4. The *Blickling Homilies* have *scolde*, 2, *sceolde*, etc., 49, with *sceofen*, *sceoren*, *sceortan*, 1 each. Aelfric's *Homilies* have *sceolde*, 181; *scofen*, 8, *sceofen*, 3; *scoren*, 1, *sceoren*, 2; *scort*, etc., 17, *sceort*, etc., 21; *scoten*, 5, *gesceot*, 1. The *Grammar* has *scolde*, 1, *sceolde*, 43 (also *scealdon*); *scop*, 8, *sceop*, 48 (also *sceap*); *scort*, etc., 119, *sceort*, etc., 372. The *Pentateuch* has *scolde*, 1, *sceolde*, 13; *ofscotod*, 1, *gesceot*, 1; *gesceortade*. The *Gospels* have *scolde*, 1, *sceolde*, 38; *scofen*, 2, *sceofen*, 1; *sceoppa*, 1 (in Cp, B, C, A).

5. *ð* (Rehm, II. § 5). The texts of the *Cura Pastoralis* agree in the following examples: *scôc* (pret.), 1; *onscôd*, etc., 5; *anscôgen*, 1, *sceôgan*, 1; *gescôp*, 2, *gesceôp*, 2. Bede has *scôf* (pret.), B 1, Ca 1; *scôl*, T 2, O 2, Ca 2, B 1, *sceôl*, B 1; *scôp*, 1 (in all manuscripts), *gesceôp*, T 1, B 5, O 4, Ca 1. The *Blickling Homilies* have *gesceôp*, 5. Aelfric's *Homilies* have *scôs*, *scôn*, *sceôan*, 3, *sceôs*, 2; *scôl*, 2; *sceôc*, 2; *sceô* (imp.), 1; *gesceôp*, 61, *sceôpon*, 3. The *Grammar* has *scôgan*, 1 (in 11 manuscripts), *sceôgan*, 1 (in 4); *scôl*, 36, *sceôl*, 1; *sceô* (*fico*), 2 in 6 manuscripts. The *Pentateuch* has *unsceôda*, 1, *gesceôp*, 19. The *Gospels* have *gesceôd*, 3;

sceðna, 3; *sceðþwancg*, 4, -*wang*, 4; *gesceðp*, 3. Compare also what is said of *sceðfan* under 7.

6. *u* (Rehm, I. § 5). In the *Cura Pastoralis*, the *Cotton* has *sculon*, -*an*, 67, *sceolon*, -*an*, 1; *onscunian*(-*igan*), 7; *sculdor*, 2. *Hatton* has *sculon*, -*an*, 81, *sceolon*, -*an*, 4; *onscunian*(-*igan*), 12; *sculdor*, 1. *Bede* has *sculon*, -*an*, T 12, O 13, B 20, Ca 9, *sceolon*, -*an*, T 2, O 3, B 1, Ca 9; *scufe*, T 1, O 1, Ca 1; *sculdar*, T 2, B 2; -*scunian*, T 5, O 5, B 7, Ca 6; *scuton*, B 1, Ca 1; *scurf*, B 1, C 1, *sceorf*, O 1, Ca 1. The *Blickling Homilies* have *sculon*, 2 (in 4 manuscripts), beside *sceolon*, *sceolan*, 69, *sceole*, 8; *scucna*, 1, *sculdar*, 1, *onscunian*, *onscunigan*, 3. Aelfric's *Homilies* have *sculon*, 1, *sceolon*, 225, *sceole*, 40; *scucca*, 5, *sceocca*, 16; *sculdor*, 2; *onscunian*, 12; *scuton*, 11; *scute*, 1; *scoriap*, 1, is admitted by error. The *Grammar* has *sculon*, 7, *sceolon*, -*an*, 82; *sculdor*, 7; (-)*scunian*, etc., 58, *sceonian*, etc., U 2; *scud*, *scutum*, 1 T; *scofle*, 1 W, *sceofol*, 6; *scolon*, T 1. The *Pentateuch* has *sculdor*, 1; *onscunian*, etc., 10; *sceolon*, -*an*, 26. The *Gospels* have *sculon*, -*an*, 6, *sceolon*, -*an*, 7, *sceole*, 23; *scufon* (pret. pl.), 8; *onscunian*, 9, *sconian*, 4; *scuton*, 4; *sceucca*, *sceocca*, 3.

7. *û* (Rehm, II. § 6). The forms in the *Cura Pastoralis* are *scûr*, *Cotton* 1, *Hatton* 3; *scôfep*, *Cotton* 1, *Hatton* 1. In *Bede*, *schûa*, *schûwa*, Ca 1; *schûfan*, T 1, B 3, O 1, Ca 2. In the *Blickling Homilies*, *schûa*, 1. In Aelfric (*Homilies*) *schûfan*, 3, *sceðfan*, 3, *scûr*, 5; (*Grammar*) *schûfan*, D 1, F 1, H 2, J 2, T 1, *sceûfe*, 1 in 8 MSS., *sceûfe* in place of *scêafe*, D 1, *sceðfe*, 1 in 2 manuscripts and 1 in 10, *scêafe*, O 1, *sceothfe*, A 1; (*Pentateuch*) *scûr*, 1, *sceðfan*, 1.¹

Unmistakable evidence of the insertion of a glide

¹ Rehm, unfortunately, frequently groups various forms under paradigmatic headings (e. g. *scufanne* under *scufan*, etc.). This is of little consequence as regards the *o* and *u* vowels, but because of it, and of numerous errors of reference, etc., his work must be used with extreme caution; compare the review in *Modern Language Notes*, 18, 58. Safe general conclusions are however satisfactorily indicated by his lists.

before *û* is found in Aelfric in *sceûfan*. But this word demands a moment's further consideration. It might be supposed that the forms with *eô* in the late texts indicate the change of *eû* to *eô* because of introduction of the glide. This may not be the case, even though the influence of the ablaut type (producing *scêofan*) might also be assumed. The form in Aelfred *scôfeþ*, -ett, 168-169.13, appearing in both texts, cannot be thus explained, for we can hardly suppose the form diphthongized and the glide not indicated (compare *sceolon*, -an, Cotton 1, Hatton 4). It seems more probable that a form *scôfan* existed beside *scûfan*. In that case, the numerous forms with *eô* in Aelfric may be due to this variant, and *sceoufan* may be due to scribal confusion. *Scêafe* is of course due to the preterit.

The conclusions to be drawn from this evidence may perhaps be rendered clearer by a brief review of the separate texts. In the *Cura Pastoralis* *a*, *â*, show a general tendency to diphthongize, but pre-nasal *a*, *o* (< *â*), *o*, *ô*, show but a slight tendency, and *u*, *û*, none, the forms of *sculan*, however forming a special exception in the case of *o*, *u*. *Bede* shows much the same relation as the *Cura Pastoralis*; diphthongization is markedly more common in the latest manuscript, Ca. In the *Blickling Homilies*, diphthongization, except of *u*, *û*, becomes the rule. In the remaining texts, diphthongization also affects *u*, *û*, to some extent. Undiphthongized cases occur owing to individual or sub-dialectal usage, scribal negligence, or non-West-Saxon influence, but the general testimony is clear. The important points are the partial tendency affecting *a*, *â*, to some extent and pre-nasal *a*, *o*, *ô*, to a slight extent, and the exceptional character of the forms of *sculan*, which is taken up below.

In considering the general development after *sk* just reviewed, the most significant feature is the diphthongization of secondary palatal vowels. This occurs only after

sc, as also in the few cases in Anglian. It must then be assumed to be due to the special tendency of *sk*, owing to the *s*, to assume palatal quality.

From this affection of secondary palatal vowels, the inference follows directly, that in all positions in which the combination had conserved the value *sk*, it was, after the period of *i*-umlaut affected in varying degrees towards the value *sk̃* or *sk̄*—in other words, the change of quality of *sk* before guttural vowels, causing the introduction of a glide, may be shown to have had a common dependence in origin with the change leading to the diphthongization of secondary palatal vowels. It cannot be supposed that a new *sk̃æ*, *sk̃ē*, *sk̃e*, developed to *sk̃æ*, *sk̃ē*, *sk̃e*, etc., and so to *sceæ*, *scēa*, *scie*, simply by virtue of the palatal vowel, else *k*, *g*, would similarly have been palatalized and would have similarly influenced these vowels. It is also impossible to suppose that the palatal influence of *s* only began to exert itself when the formation of a new palatal vowel after it provided a factor to cooperate with it in palatalizing the *k*. Plainly, *sk* was at some period after *i*-umlaut, before diphthongization of secondary palatals took place, already affected in some measure toward palatal quality by influence of the *s*. Before taking up the question of the process of the development, and the relation in point of time of the affections of secondary palatals and of gutturals, the question of the time at which the diphthongization of secondary palatal vowels took place must first be considered.

To this question, the word *sciendan* affords an answer. As Bülbring points out (*Elementarbuch*, § 289, note 1), the diphthongization in this word must be assumed to be later than the change of *æ* to *e* before nasals, which in accordance with Sievers (*Anglia* 13, 16 f) is to be set probably in the second quarter of the 8th century. The diphthongization of *æ*, *ē*, we may add, is naturally also to be set later

than this date, else *sciendan* would have been diphthongized, while in the form **scændan*, to **sceandan* (diphthongization of *æ* cannot, of course, be supposed to have been anterior to that of *æ*). This would bring the diphthongization of secondary *æ*, *æ̆*, *e*, to some indeterminate later date, presumably in the last part of the 8th century or first part of the 9th.

It would seem as if a connexion was here indicated between the diphthongization of secondary palatals and the introduction of a glide before gutturals. *Sk* had not of itself become so far palatal before circa 725 as to diphthongize *æ*, *æ̆*, and yet the *s* had to some extent fronted the *k*, else the subsequent development would not have taken place after *sk* alone, but after *k̆*, *ğ*, also. This influence of the *s* must also have been operative in *sk* before guttural vowels, and *sk* must, both before the secondary palatals and gutturals, have become *sχ*, whence developed palatal *sχ* (or, as a variant, *s̆χ*) before the secondary palatals, and *s̆χ* before the gutturals. What interval of time intervened between the diphthongization of the secondary palatal vowels and the inception of the diphthongization of the gutturals, it is of course impossible to say. But as the *sk* before gutturals in common with the *sk* before the secondary palatals, must have by 750 have become *sχ*, it may be assumed that the inception of the change of *sχ* to *s̆χ* before gutturals and their diphthongization coincided with, or followed close after, the diphthongization of the secondary palatals. Hence, the diphthongization of *a*, *ā* by *s̆χ*, which was the inception of the diphthongization of guttural vowels, must have begun in the first half of the 9th century. This theoretic conclusion is borne out by the conditions in the Aelfredian texts. *A*, *ā* are already largely affected, and the other guttural vowels measurably according to their quality.

To return to the diphthongization of secondary palatal

vowels and the development of *sk*. A notable feature of the examples, and a test of them, indeed, is their occurrence in variant forms without diphthongization, e. g. *scæft*, *scæ ig*, *scæp*, *scendan*, etc., beside *scaft*, *sciendan*, etc. An explanation of this fact might be sought in the assumption that the diphthongization was sporadic and that diphthongized forms remained beside those diphthongized. But this is not an adequate explanation, if a more specific one can be offered; the element of apparent haphazard may not perhaps be removed, but it may perhaps be shown why diversity of development, though still seemingly accidental, was possible.

Bülbring, to whom so large a debt is owed in the exposition of this subject, has, in treating these variant forms, referred them to the Saxon *patois* as distinguished from the pure West Saxon dialect of Aelfred and Aelfric. The various subsidiary dialects, referred to collectively under this name, are not, it need hardly be said, to be regarded as a single and different and consistent dialect distinct from the West Saxon. The *patois* of course at various points exhibits affiliations with extra-West Saxon dialects, as it also exhibits dialectal characters distinctive of the pure West Saxon. If certain features of *i*-umlaut, if a more extensive development of *u*-*o* umlaut, or the like, are displayed by it, on the one hand, in common with Mercian, on the other hand it displays West Saxon *ê*, the breaking before *h*, and so on (cf. Bülbring, *Elementarbuch*, § 179, note). But resemblances to dialects other than West Saxon, whether derived from them or separately developed, do not cover all the diversities. The *patois* will of course display variations that pertain to the West Saxon or Saxon proper and are incident to its independent development. The conditions in regard to these, it is incorrect, in a sense, to formulate into a hard and fast statement—to say for example, that in pure West Saxon such and

such conditions are found, while in the *patois* the reverse is the case. It may, likewise, be historically incorrect to say that particular forms in pure West Saxon texts are *patois* forms. The real meaning of such a statement is that certain forms, historically justified, are retained despite the preferred and normal usage exhibited by the majority of words of like origin. This appears, for example, in a form like *sceppan*, which became the regular form of the verb in place of **scieppan*, which indeed appears in the poetic *scyppan*.

It seems helpful to hold to this point of view in considering the variant forms without diphthongization, referred to above. Bülbring's statements in regard to the absence of diphthongization in the *patois* suggest or imply that this is a broad distinction of the *patois* as over against the pure dialect. Thus he says (§ 152), that *e* is in great part retained; *æ* is in part retained; (§ 153) partial retention of *æ* is probably to be assumed; (§ 181) in the Saxon *patois*, in which *æ* in part underwent no diphthongization, it is naturally in a certain measure unlauted to *e*. In the case of a variation of this character, the possibility must be kept in mind that it may stand in a more intimate relation with the development of the pure dialect than other variations, that it may not be due to geographical contiguity to non-West Saxon dialects, intermixture from them, or extension of a tendency represented in a more limited form in the pure dialect.

In the present case, it is quite natural to assume off-hand, as a convenient general conception, that diphthongization ruled in the pure dialect and was accidental or not carried through consistently in the *patois*—such a view, in brief, as a reader would form from Bülbring's last statement. Yet, considering the time at which the general affection took place, a limitation of the tendency of this character, at least to the degree apparently indicated by a

superficial review of the examples, is unlikely. That variation should apply to every type of word susceptible of diphthongization, and that variant forms of these should persist in contravention of the general tendency during the period of its operation, is improbable. Variation would naturally rather occur in special classes of words and for specific reasons.

If now the examples of words without diphthongization in the *patois* are examined, such limitation of variation to a special group seems apparent. Of *æ*, Bülbring adduces (*Elementarbuch*, § 152, note) cases in the *Harleian Gloss* (Wright-Wülker, *Anglo-Saxon and Old English Vocabularies*, I, 192-247): *forǧæf*, *scætt*, *gescæft*, *gescæp*. Compare also the poetic forms referred to by Sievers (§ 75, note 1): *gæst*, *scæd*, *scær*, etc. Of *ê*, Bülbring remarks (§ 153, note), that partial retention of *ê* is probably to be assumed, though only one or two doubtful examples appear: *ofǧêfon* in the *Genesis*, 85, and *agêfe* (conj.), *scêp*, beside *agêfe*, *scêp*, in *Rushworth*¹. To these may be added *scêron* (Sievers, § 75, note 1). In the case of *e*, in place of *ie* by umlaut < *ea* < *æ*, Bülbring (§ 181, note) gives only a general reference to *sceppend*, *sceppan*, *cele*, *scell*, etc., remarking that in Aelfred such forms are isolated (*sceppend* and *cele*, each once), while in Aelfric trustworthy examples fail.

A notable fact at once becomes apparent, when these examples are considered together, namely that all but one or two have *sc* initial. The exceptions are *forǧæf*, *ofǧêfon*, *agêfe*, *cele*. Of these *-gæf*, in the *Harleian Gloss*, is quite isolated in texts having any pretensions to be called West Saxon. That it is to be regarded as a variant of *geaf*, retained from the period of diphthongization is rendered extremely improbable by the presence in the same text of *agifen*, *forǧifen*. A mere scribal error it can hardly be. Analogy of its ablaut-row can scarcely be supposed to have affected the preterit alone. Even to suppose it un-

related to the participle *-gifen* in the same text helps but little. Here *ofgêfon* (*Genesis*), *agêfe* (*Rushworth*¹), may be considered. Though their West Saxon character may be doubtful, as Bülbring notes, they are none the less not proper Anglian or Kentish forms, and their occurrence in separate texts renders doubtful their being cases of orthographic substitution of *ê* for *ē*. They argue an undiphthongized 2d sing. and plural preterit. With this support, it might be possible to assume an undiphthongized form of the verb persisting from the period of general diphthongization through influence of the ablaut-type (the *-gæf*, *-gifen* of the *Gloss* being assumed to be independent of each other). Or it is conceivable that *gæf* was due to an undiphthongized *gæf*, *gêfon*. This may seem merely to remove the difficulty to another quarter. But it is not at all certain that diphthongization of *ê* (< West Germanic *ā*) was carried through consistently. The difficult word *gêsne*, beside *gêasne*, is best explained as an undiphthongized form. *Scêp* also seems to belong here, as not conforming to the explanation given below of the forms with *sc*; *scêron* is dubious, as it shares immunity in variant usage with the other forms of the verb, apparently by influence of the ablaut-type. That other cases do not appear is not really surprising in view of the small number of words with this vowel. In support of possible retention of undiphthongized forms, the discussion above of the quality of *ê*, as less palatal than *æ*, may also be considered.

The point to be emphasized is that, in spite of the conjunction of undiphthongized forms in the *Gloss*, only the form *-gæf* appears, apart from loan-words and those having *sc*. Outside of this text, the cases are confined to the undoubtedly related forms *agêfe*, *ofgêfon*, with the poetic *gæst* and *cele*, both of which admit of another explanation, and *gêasne*. *Gæst* has already been discussed above. *Cele*, found in Aelfred, may be satisfactorily referred, as Cosijn

suggested (p. 63), to the influence of *gecêlan* (309.7) with *kelnes* (309.1). *Gêzne* must be accepted as an undiphthongized form, and as such brought into conjunction with *agêfe*, *ofgêfon*, as attesting variant retention of undiphthongized *ê*.

No other cases with *e, g*, offer themselves in which diphthongization should normally be expected, but does not occur. The remainder of the cases, and they are numerous, have *sc*. The variation is, in fact, practically confined to a special group, and for this group an explanation is sought. In considering the examples, a point to be kept in mind is the possibility that lack of diphthongization was due to retention of *sk* by influence of related forms with guttural vowels.

The first example, *scætt*, is a clear case of variation; retention of *sk* may be surmised owing to the plural and the influence of *scot*.

Gescæft has already been discussed and referred to the group having post-umlaut diphthongization.

Gescæp can be supposed to have retained *sk* by influence of the plural, and of the verb (see below).

Scæd may have retained *sk* by influence of the plural, also of the related form *scadu*. In this form, as in the last, the question rises whether the plural could preclude diphthongization through the singular. *Scadu* itself was, of course, exposed to influence of all the other cases of the singular. In the *Cura Pastoralis*, however, *scadu* (*Hatton*) occurs beside *sceadu* (*Cotton*), and the form with the diphthong seems to be due to insertion of a glide before the guttural.

Scær, *scêron*, in poetic use, offer a problem. Bülbring (*Elementarbuch*, § 303) supposes two forms, *sceâron* with original *â* retained, and *scêaron* with *ê* by analogy. Supposing the first of these to have existed, as no doubt it did, retention of *sk* in *scæron* might be surmised by its influ-

ence. But this does not explain *scær*, or still more *sceran*, occurring twenty-six times in Aelfric's *Grammar* in all manuscripts. The influence of the ablaut-type, especially of *beran*, was probably the factor which occasioned this lack of diphthongization.

Scêp, in *Rushworth*³, cannot have retained *sk* through analogy, but owing to its vowel, it may be classed with *âgêfe*, *-gêfon*, *gêsne*.

Sceppend occurs in five cases in *Bede* (Rehm, p. 18), and the *Grammar* has *ic gesceppe*, 158, 5 H. Two explanations are possible. One is that two forms developed, the normal **skeapjan* and the variant **sċæpjan*, whence respectively **sċieppan* and **sċeppan*. The other is that a form **skæpjan* existed with *sk* from the other forms of the verb, whence **skeppan*. Such a form might have produced **skieppan* by post-umlaut diphthongization, which would merge with the normal form, also a form **sċeppan*, like *scendan* beside *sciendan*. *Sceppan* has already been discussed as regards the forms *sceapan*, *scæppan*. In this word, taking into account the poetical form *scyppan*, all the possible forms developed. Pre-umlaut **skeapjan* gave **scieppan*, whence *scyppan*. Pre-umlaut **skapjan* gave **skæppan*, whence by post-umlaut diphthongization *sceapþan*, *sceapian*, and through development of *sċ*, *scæppan*. Pre-umlaut **skæpjan*, with *sk* from other forms of the verb and from **skapa*, or *sċæpjan*, supposing pre-umlaut existence of *sċ* as a possibility to be considered, gave **skeppan* or *sċeppan*. It is of course not necessary to assume pre-umlaut **skaepjan*, for if *sk* ruled through the influence of the preterit and the noun, **skeppan*, by post-umlaut diphthongization, might have given **skieppan* as a source of *scyppan* on the one hand and *sċeppan*, the prevailing form on the other.

A comparison with *scieppan* is instructive. The question suggests itself whether it may not have had a form

**skapjan* to give **skæppan* and hence **skeapan* beside **sčæppan*. The possibility of such a form cannot be readily demonstrated. The only possible causes for it, which offer themselves are the existence of a present stem without *j*, influence of a variant **gescap* of the noun due to the plural, or influence of the ablaut-type. The last of these is the only one worthy a moment's consideration. The possibility of *sk* being carried through from the other forms of the verb is apparent, and to this presumably the recorded form, *sceppan*, is due. What is wanted is not an initial *sk*, but a stem-vowel *a*. The influence of the ablaut-type seems somewhat remote, yet a form **skapjan*, due to this cause, may have existed in West Saxon, and its derivatives **sceappan*, **sceapian* or **sčæppan*, **sčæpian* (with *sč*) may yet be discovered. **Skapjan* seems indeed to be represented in derivative forms in Northumbrian in the *sčæppend* (2), *sceppend* (1), and *gesceap*' (168.19), of the *Ritual*. It does not seem probable that these are due to a new post-umlaut formation on analogy of the noun *giscaep*.

Scell owes its lack of diphthongization presumably to retention of *sk* by influence of *scalu*. Another pre-umlaut variant with *a* is theoretically possible, which might give by post-umlaut diphthongization **sceal*, beside **scæl* (with *sč*). The first of these would merge with *scealu* (from *scalu* by insertion of a glide before *a*), but **sceal* may yet be found as a nominative, or **scæl* in some case of the singular.

Scæb (*Leechdoms* B, 1. 322.17), beside *sceabb*, may presumably be due to retention of *sk* by influence of *scafan*.

Scær, *scer* ("uomis scer, scær DH, scear JW fehlt O") in Aelfric's *Grammar*, 55.16, similarly shows influence of *sceran*.

The list concludes with *scael*, *scēl*, beside *sceal*, which will be taken up in connexion with the discussion of *sculan* below.

The array of cases is certainly significant, when compared with the few forms without diphthongization not having *sc* in anlaut. The question offers itself what is the explanation of this special proclivity of forms with *sc* to display lack of diphthongization, not so much as regards the reason for it, which must have been the double development of *sk* to *sċ* and *sç*, but as regards the period at which it occurred. Theoretically, it is possible that *sk* might have developed both values at the time of general diphthongization. One naturally hesitates to accept such a conclusion, and with reason. This is not because it would carry the *sç* value so far back, but because there is no real reason to suppose that the orderly development of *sk* to *sċ* before palatals should be precluded by accidental saltus to *sç*. Moreover, there was then a clear separation of *sk* and *sċ*; any accidental variation to *sç* in a few cases would have been estopped. It will be noted that, in all the examples, there are reasons why *sk* may have been retained in variant usage by influence of related forms. Herein, it would seem, is the true explanation. These undiphthongized forms with *sk* persisted until *sċ* in general gave way through influence of the *s*, being supported throughout by the related forms which caused them, until the *sk* in those forms itself began to yield by the same affection that produced diphthongization of gutturals. These undiphthongized forms with *sk* were, in fact, similar to the forms with secondary palatal vowels; some of them indeed, which received not only *sk* but a vowel *a* from related forms, contained secondary palatal vowels. They would undergo, then, the same development as that through which the forms with secondary palatal vowels passed, and like them would persist in two forms, one with *sċ* and diphthongization, and the other with *sç* without diphthongization.

It may be asked why the *k* and the *g* did not undergo

a similar development. The reason is apparent. The words with *k* and *g* were not similarly subjected to the influence of related forms and of words of similar meaning. The single influence upon these words, that might produce a variant with *k* or *g*, in place of *ġ* and *ġ*, is the plural in the case of strong nouns. The verbs all lack supporting forms. If variants were produced with *k* and *g* in the noun, they would still succumb to the influence of the prevailing singular type and not come to be recorded.

An examination of the cases of *sk* will make clear how exceptional a group they form, as regards the existence of forms able to effect their variant retention of *sk*. The verb *sceran*, *scær*, *scæron*, is one example in which retention of *sk* cannot be surmised, but here the influence of the ablaut-type and especially of *beran* seems to explain sufficiently the lack of diphthongization. *Scêþ*, a second case, may be referred to the group of forms with *ê*, referred to above. In brief, the variant retention of *sk*, and its double development in the same manner and at the same time as the *sk*, in forms with secondary palatal vowels, affords an explanation of this special group of examples.

Scæl, beside *scel*, was not treated in the list of examples, that it might be taken up in connexion with other forms of the verb. It occurs in *Orosius*, and in a number of cases in the *Cura Pastoralis* (Rehm, p. 10), and also appears in the *Grammar*. This form cannot be explained as merely a monophthongization, or as due to lack of stress. The development of the verb as a whole is of exceptional interest. It displays very early and to a marked extent diphthongization of forms with guttural vowels. Bülbring (*Elementarbuch*, § 511) refers this to extension of palatal *sc* (marked by him with accented *sc*) from *sceal*, *scyle* into *sculon*, whence *sceolon*, and *scoldon*, whence *sceoldon*. That levelling of this character took place is probable, but the question will admit of further examination in the

light of the full record of the cases with *sc* in Rehm's monograph.

The question is whether it is necessary to assume extension of *sċ* from forms in which it occurred early into those having *o* and *u*. Insertion of a glide before *o* had not apparently become normal usage in Aelfred's time, and plainly not before *u*. But the word is one occurring in most frequent use and might be expected far to outstrip others in its phonetic development. Moreover evidence as regards other words is scanty; in the case of *o*, we have, in the *Cura Pastoralis* twelve cases, counting both manuscripts, of *scofen*, *wipscorap*, *scoren*, *scort*, *gescot*, *scoten*. Further the possibility is to be remembered that the scribe did not consider it necessary to give the glide orthographic expression, if the word explained itself sufficiently without; the single example with the glide in *Hatton*, *wipsceorap*, apart from the cases of *sceolde*, indicates that the glide might be recognized on occasion. Yet again, the relation of the diphthongized to the undiphthongized forms of *sceolde*, *scolde* (95 : 13 in *Cotton*, 64 : 77 in *Hatton*) would seem to indicate rather variation incident to a growing tendency, than to conform with the supposition of an influence, the conditions for which were present from an extremely early period. Finally, in the case of *sculon*, *sculan*, there is the significant fact that, in contrast to *sceolde*, *scolde*, the relation of the diphthongized to the undiphthongized forms is 1 : 67 in *Cotton*, 4 : 158 in *Hatton*. On the supposition of an extension of palatal *sċ* into these forms, we ought to find here frequent and well-defined diphthongization; the ratios should not be in such marked contrast to those in the case of *o*. Indeed, it is into the forms with *u*, as present forms, that the extension should first have taken place, as the forms with the palatal were the present singular indicative and conjunctive. In the case of the *u*, we should of course remember as a possible

orthographic condition, that the indication of the glide was not forced upon the scribe until the word has taken the form *sceolon*, *sceolan*. But this does not explain why precisely these forms are not more common. And conditions as regards *u* in Aelfred are quite in keeping with the evidence of a growing tendency displayed by the other texts. In *Bede* O, Ca, in which the ratio of *eo* to *u* is 3:13 in O, 9:9 in Ca, *scurf* appears as *sceorf*, 338.18, while in the *Blickling Homilies* and *Aelfric*, conditions are reversed as regards *u*; scarcely a case of *sculon*, *sculan*, can be found that has not *eo*.

These considerations seem to afford fairly convincing proof of the independent development of *eo* from *o* and *u*. One more point must be touched upon which naturally suggests itself, namely why, if the development is independent, there should be in the Aelfredian texts so great a disparity between the number of cases of *scolde* with *eo*, and of *sculon*, *sculan*, with *eo*; there should not, one should think, be so great a difference between the development of *o* and *u*. Some influence must undoubtedly be referred to the scribe's not indicating the glide in the case of the *u*, except when writing the altered diphthong, but the real answer is that there was such an actual difference. One has only to look at the later texts to find it clearly indicated. In the later texts, the insertion of the glide before *o* has taken place in a large number of words; in the case of *u*, while *eo* is used in *sceolon*, *sceolan*, and has begun to appear elsewhere in a few words (enough to establish the fact that the diphthong was recognized), namely *sceocca*, *sceofol*, *sceonian*, the *u* still persists, except in *sceolon*, *sceolan*, in the majority of cases.

The fact that the change of *o*, *u*, to *eo* seems demonstrably an independent development does not of course exclude the possibility of contributory influence from the presence of *sê* in other forms of the verb; the conclusion just

reached simply goes to show that the development was not wholly or substantially due to such influence. The forms in which *sk* first originated, and which Bülbring adduces as influencing the forms with *o* and *u*, are the present, *sceal*, *scealt*, and the optative (with *i*-umlaut) *scyle*. What was the quality of the *sc* in these forms?

Theoretically, the present singular, **skæl*, must have undergone diphthongization according to rule, and the uniformity of the recorded form attests that it did so. *Sceal*, therefore, may be presumed to represent, in Aelfred, *skæal*, the falling diphthong demonstrating itself in the monophthongized form *scel*. What now was the nature of the less frequent form *scæl*? Bülbring (*Elementarbuch*, § 454) refers to this form as rare and classes it as an unstressed form. Rare it is, though it is not confined to *Orosius* (which Bülbring cites), as Rehm's record (p. 10) now provide five cases in the *Cotton Cura Pastoralis*. Is it, however, an unstressed form? Precisely what difference an unstressed form of *sceal* would assume, it is, of course, difficult to say; so far as one may judge from other words, one would rather expect the more open vowel, *a*. The word certainly appears in a large number of cases for an unstressed form, and especially considering its meaning. *Scealt*, the 2d person, it may be added, occurring some ninety odd times in the various texts (there are only three in the *Cura Pastoralis*), shows no 'unstressed' form of similar character; this in itself is a substantial argument against the reference of lack of diphthongization in *scæl* to lack of stress, as the diphthong in *scealt* is due to breaking, but would be quite as subject to such an influence (compare forms without breaking under secondary stress in composition). These various considerations seem to prove that *scæl* is not an unstressed form of *sceal*. It falls then naturally into the group that retained *sk* by influence of the *sk* of related forms with guttural vowels, until the *sk* yielded and became *sč*.

As regards the influence of forms with palatal *sċ* upon the forms with guttural *sk* before guttural vowels, it may finally be pointed out that *sceal* and *scealt* had palatal *sċ* from the time of general diphthongization, *scyle* from some period after *i*-umlaut, as soon as the *y* had had time to palatalize the *sk*. The influence of *scyle* cannot be reckoned upon as an important factor. There was, however, an extended period during which *sceal*, *scealt*, might have exerted an influence, and indeed it seems highly probable that their influence would have been felt in the plural of the present at least, though, as suggested above, if these forms influenced those with *o* and *u* materially, it would seem as if the Aelfredian texts should show greater uniformity in indication of the glide before *o*, and not such great disparity between the *o* and the *u*. However, to state the matter in round terms, it is apparent in Aelfred that the forms of *sculan* show the diphthongization of guttural vowels by insertion of a glide to a markedly greater extent than other words. The explanation of this fact reduces itself merely to a matter of opinion, whether this is not due to the greater relative frequency of use of the word, or to the influence of the forms with palatal *sċ* of the present indicative working through to the plural, and so to the infinitive. The two possibilities are not mutually exclusive, but general conditions seem to indicate that diphthongization was merely developed earlier in this word owing to frequency of use, and was not due to levelling in any great measure, as the different degrees of development in Aelfred of *o* and *u* correspond to the degrees of development in other words in Aelfred, and in this and other words in the later texts.

The change of *sculon*, *sculan*, to *sceolon*, *sceolan*, has already been explained as due to difference of articulation, according as the word is pronounced with the mouth-orifice narrowed or opened, in a manner corresponding to

retention of *u* or its change to *eo* after *j*. The diphthong in these words accordingly remained presumably a rising diphthong, though change to a falling diphthong may have occurred incidentally in variant usage. This explanation also accounts for the fact that *u* persists beside *eo* in *sculan*, and to a notable extent in other words, in all the texts, including the latest.

To pass now to the forms with original *e*.

E is diphthongized to *ie*, often reduced to *i*, *y* (pp. 31 f., 42, 55-57, 63). The examples are *scieran*, *scierseax*, *scield*, *scild*, beside *sceld* (2 cases in *Orosius*); various forms of *giefan*, *gieldan*, *gielpān*, *-gietan*, *scioldan*; *giefol*, *giofol*, *gifol*; *giefu*, *gifu*; *giefan* (*donatorem*); *-giold* beside *-geld* (1, *Orosius*); *gielp*, *gilp*, beside *gelp* (2, *Orosius*).

Diphthongization of *e* in the Aelfredian texts is, it will be seen, regular, except for one or two cases, *sceld*, *geld*, *gelp*, in *Orosius*. These undiphthongized forms demand special consideration, like those of *æ*, *ê*, just discussed. Bülbring (*Elementarbuch*, § 151) remarks that *e* is in great part retained in the *patois*, and cites from the *Harleian Gloss* the forms *gelp*, *geld*, *gelde* (sterile), *ongeten*, *begetend*, together with the forms in the *Orosius*, just noted. To these may be added *sceran* (26 cases in the *Grammar* in all the manuscripts; see Rehm, p. 21 f.); *sceldan* (3) beside *scyldan* (7) in the *Blickling Homilies*; *sceld* in the *Grammar*. *Scere*, *Pentateuch*, *Genesis* 38.12, cited by Rehm as the dative of 'sceru', does not belong here, but is a monophthongized form of *sceare* from *scearu*; *scer*, *vomis*, in the *Grammar*, similarly does not belong here.

There is a marked contrast in this list of cases of undiphthongized *e* to the record in the case of *æ*, which includes only one form *-gæf*, exclusive of those having *sc*. It is also worthy of note that undiphthongized forms with *e* are represented in an Aelfredian text, while this is not the case with *æ*, except as regards forms with *sc*. It seems sug-

gestive at first sight, though merely accidental, that only the nouns *geld*, *gelp*, occur in *Orosius* undiphthongized beside numerous forms with the verb, and that it is the nouns that are found undiphthongized in the *Harleian Gloss*. The possibility might be entertained that they were umlaut forms; Cosijn, it may be remarked, so classes them, though remarking that they may better be classed under the verb as having original *e*. Were they umlaut forms, they might be explained as variants from **gæld*, **gælp*, beside the normal *giel*, *gielp*, which in that case would be from **geald*, **gealp*. This is improbable, as variants **gæld*, **gælp*, would be expected, and it seems far-fetched to call in here the occasional umlaut of *ea* to *e* (Bülbring, *Elementarbuch*, § 179, note 1). Moreover, the forms *sceld*, *gelde* (sterile), *ongeten*, *begetend*, would remain unexplained.

The number of words represented in the list is really far more significant than appears at first sight. The question of the frequency of the appearance of such variants in the standard speech depends upon the whole number of words in the group to which they stand in the relation of variants, and also upon the frequency of use of individual words. In the present case, the group is exceedingly small; there are none with *c* initial, or certainly none of frequent use, and only a few with *g*, namely those from the stems, *gef*-, *geld*-, *geld*- (sterile), *gelp*-, *get*-, and the loan-word *giem*, *gimm*. Moreover, in the case of verbs, the whole tendency is away from the *e* to *ie*, *i* (*y*), owing to the 2d and 3d person singular. The number of possible words to display variants is certainly few, yet of these we have evidence of undiphthongized forms from every stem except in the case of *giem*, and of *gef*-. Even in the case of *gef*-, it is indeterminate whether the late forms *geofan*, etc., are from *gefan* or *gifan*, while indeed the influence of *gif*-, functioning as a stem, and of *gift* upon **gefu* may be surmised to

have possibly had influence in precluding variants without diphthongization. And, as remarked above, it is notable that seven cases should occur in one Aelfredian text—two cases of *sceld* beside *sciēld*, *scild*; two cases of *gelp* to two of *gielp*; one case of *-geld* to fifteen of *giēld* and five of *gild*. There can be no question that the variation is historical. The question which rises is, what was its cause, and especially in view of the contrast displayed to the forms with *æ*. This leads to a consideration of the time at which diphthongization of *e* took place in West Saxon.

In the explanation of palatal diphthongization, it was shown that diphthongization of *e* should theoretically follow that of *æ* in point of time. Further, it is plain from conditions in Northumbrian that this was the case; though the record shows that diphthongization of *æ* has advanced to some extent, the *e* remains undiphthongized. This difference in time between the two diphthongizations must hold for West Saxon, where both took place. How great the interval was between the two, it is impossible to say. The date of the diphthongization of *e*, it is difficult to determine. A criterion seems at first sight to be afforded by the apparent precedence of *u-o* umlaut as noted by Sievers (§ 76, note 3), who cites *geolo*, *geoloca*, *ceole*, *ceorian*, with *giefu* unaffected because of the oblique form, *giefe*, but with *geofu* recorded in texts not pure West Saxon. But Bülbring's view (*Elementarbuch*, § 253; compare also *Anglia Beiblatt*, 11, 103) is undoubtedly the correct one, that *eo* in such cases in West Saxon is from *io*, and that this *io* is the *u-o* umlaut of *ie* by diphthongization. The unchanged *io* appears in *giofol* (2) beside *gifol* (1) in the *Cura Pastoralis*, the *eo* in *ceoriap* in the *Orosius*. 142.7 (Cosijn, p. 39)¹.

¹ Bülbring's suggestion, it may be added, that *ofergiottullnisso* (1) beside *ofergeotolnisse*, *ofergeatul* (1 each) in the *Ritual*, *ofergeotol* in *Lindisfarne*, may be due to the same development on the strength of the

The only possible approach to a determination of the date of the diphthongization of *e* is afforded by that of the diphthongization of *æ*. The difficulties involved in the whole question are apparent, and it can merely at best be treated speculatively, but even probabilities or possibilities are helpful, or even demonstrably false conclusions, if later discussion is helpful that proves them so.

Diphthongization of *æ* is usually held to have taken place before *i*-umlaut. But at what interval? The single necessary associated change is that of *a* to *æ*. This change, which began on the Continent, seems to have been still in progress after the invasion, since Latin words, first adopted in England, appear with *æ* from *a*, mere substitution of *æ* for *a* being improbable (compare Chadwick, *Studies in Old English*, p. 166; Bülbring, *Elementarbuch*, § 92). What extent of progress the affection had made at the time of the invasion, it is probably impossible to discover. *I*-umlaut, on the other hand, was certainly concluded before the close of the 7th century. It seems probable that it was still operative during the century on the evidence of *glæsan*, later *glêsan*, from L. *glossa*, as it is difficult to believe the umlaut merely functional, a possibility Pogatscher entertains in his article on the subject in the *Beiträge*, 18,467. In Anglian, the *i*-umlaut precedes palatal umlaut, which is set by Chadwick (p. 117) even before 650, and as the umlaut was a change of long gestation and therefore probably took place at about the same time in all dialects (though with effects somewhat dissimilar), it may be concluded that in West Saxon also the affection had largely run its course by the first half of the century, and that its inception is to be referred to the 6th century. At some period previous to its inception, diphthongization of *æ* in West Saxon is held to have taken place.

exceptional *sci(e)ppend*, does not recommend itself, owing to the improbability of the development of a wholly isolated *ie* after *g*. The single case with *io* is due to interchange of *eo* and *io*.

It is apparent at once that a comparatively brief period is left between the change of *a* to *æ* and the inception of the umlaut, even if the inception of the umlaut is set at the beginning of the 7th century—barely more, indeed, than a hundred years. This suggests at once that the diphthongization must have closely preceded the umlaut. The changes involved in the process, whatever view be taken of its nature, preclude the supposition of its having proceeded with rapidity. The palatalization of the consonant and the formation of the diphthong are to be considered, and it is also to be remembered that the diphthong produced must have had time to settle into stable form. The striking uniformity of the cases with umlaut attests this, and also the result of the umlaut, namely *ie*. This result is only possible on the supposition that the diphthong was already, before umlaut, *ea*, with a marked difference of quality between its two elements. In this case, a series of coordinate changes could take place, preserving a difference of quality and so producing *ie*. Otherwise, monophthongization would have resulted, as in the case of *i*-umlaut and palatal umlaut of *æa* in Anglian. These considerations render it improbable that the process of diphthongization could have been completed in a short space of time. On the other hand, it is to be remembered also that the diphthongization was an individual feature of West Saxon. To assume an early diphthongization for other dialects necessitates supposing Mercian to have been an entire exception in contrast with its close congener, Northumbrian, and Northumbrian to have had a diphthongization of the narrowest possible range (for which there is no true evidence) followed by a later sporadic diphthongization in the 10th century. This fact in itself renders an early date before *i*-umlaut unlikely, and tends also to enforce the argument drawn from the fact that the completion of the diphthongization must have demanded a relatively extended period of time.

This conclusion in regard to the diphthongization of *æ* affects that of *e*, in that the latter is to be held as having taken place at a later date. One possibility is that the diphthongization of *e* took place close after that of *æ*, but still before *i*-umlaut, but that it was carried through less completely. The other is that the diphthongization of *æ* immediately preceded, and that of *e* coincided in point of time with, the umlaut. In considering these possibilities, it must be kept in mind that the *æ* shows undiphthongized forms in the record only in *gæf*, excluding the special group with *sc*, while in the case of *e* forms from practically all the stems involved appear undiphthongized, five cases appearing in an Aelfredian text. Of the two possibilities, the second is the more probable. The first necessitates supposing an exceedingly rapid affection. That *e* should be less affected than *æ* could be due only to the resistance offered by it, or to a dying out of the tendency. But diphthongization of *e* is carried out consistently, as far as the range of forms is concerned, and therefore the *e* offered no other resistance than that which caused its diphthongization to be later than that of *æ*, while to assume a dying out of the tendency before the time of *i*-umlaut necessitates supposing the period of change of *e* limited to a very brief period. The second supposition, on the other hand, places no limitation on the period of the affection as regards its inception or its completion, and permits the assumption that it followed upon that of *æ* after an indeterminate interval and took place at a time when the affection was dying out, and that therefore diphthongized and undiphthongized forms remained beside each other.

It is perhaps worth while, in passing, to note a possibility suggested by the fact that, exclusive of those with *sc*, all the undiphthongized variants, not only with *e*, but also those with *æ* and the single case *gaef* with *ae*, begin with *g* and not with *c*. It is not impossible that the spirant *g*

may have developed during palatalization not only to the value *g*, but also to a value *y*, like that of original *j*; and that in such cases diphthongization naturally did not follow. This suggestion is not susceptible of proof. It would, to be sure, explain the whole range of undiphthongized variants other than those with *sc*. But, on the other hand, the cases with *e* after *sc* would be left without explanation, as one must hesitate to suppose that *sc* developed so early, as the period of the diphthongization of either *æ* or *e*.

In this discussion, it has been assumed, in accordance with the usual view, that diphthongization of *æ* took place before *i*-umlaut. This is regarded, apparently with reason, as a fixed and certain fact; the reader will remember the manner in which Bülbring reminded Dieter of it in his article in *Anglia Beiblatt*, 9, 80. It is never unprofitable, however, to examine views long accepted and to test their validity. What briefly is the evidence for this view? It rests on four points: (1) the fact that secondary palatals are not diphthongized; (2) the fact that the assumed umlaut of *ea* by palatal diphthongization parallels the umlaut of *ea* by breaking and of *ēa*; (3) the evidence afforded by **cāese*; (4) the fact that *u-o* umlaut was preceded by palatal diphthongization¹.

1. To the first point, the following answer may be made. The fact that secondary palatals are not diphthongized is of no force for the reason that the words with secondary palatals are all cases in which the vowel and therefore the consonant before it were guttural before the umlaut; these secondary palatals were from pre-nasal *a*, *ā* (<*ai*), *o*, *ō*, and also some few cases of ordinary *a* by levelling and probably before consonant combinations. To affect diphthongization after umlaut, the consonant would

¹ Bülbring adduces (*Anglia Beiblatt*, 11.88 ff.) six criteria, of which 1, 2-3-4-5, 6 correspond to 3, 1, and 4, respectively.

have had to go through the same process of change as the consonant which had stood before a palatal vowel from an early period. Assuming post-umlaut diphthongization hypothetically, we should have unumlauted forms with *æ* (for example) with consonants which had stood before a palatal vowel since *circa* 500, some two hundred years. The consonants standing before newly made palatal vowels can hardly be expected instantly to have become palatal and to have diphthongized the vowels, and it is easily conceivable that the affection long prepared in the case of the forms with *æ*, *ê* (< West Germanic *ā*) and *e*, could take place after umlaut and the tendency to diphthongization disappear before the consonants which stood before secondary palatal vowels had acquired the necessary palatal quality to affect diphthongization.

Furthermore, the nature of the secondary palatal vowels is to be considered. It is impossible to say that the *æ* from pre-nasal *a* was precisely similar to ordinary *æ*—that it might not have been approximately *æ*, or indeed whether the umlaut was not *æ* itself. There seems reason to believe that the umlaut vowel was *æ* before it became *e*, and practical similarity was assumed in the discussion of *sciendan* above, but such similarity cannot be regarded as positively certain. Hence its ability to diphthongize for a long period is doubtful. The final result in any case from this vowel and from *o*, *ô*, is an *e* sound, and this sound is less susceptible to diphthongization than the *æ*. The quality of the *ê* from *ā* is also not certain; it may have been so little palatal as not to have provided the necessary conditions for diphthongization at all.

2. As regards the second point, that the umlaut, as assumed, of *ea* by diphthongization, parallels that of *ea* by breaking and of *êa* from *au*, the obvious fact may be pointed out that this may be only a coincidence. The *e* by umlaut (assuming no pre-umlaut diphthongization)

might as well have diphthongized, along with and like original *e*, to *ie*.

3. The third point has reference to **ciese*. The argument here is a very clear one. This Latin loan-word must have had the pre-umlaut form **cêsi*. As *ê* does not change by umlaut, the *ie* of the recorded form can only come from a pre-umlaut diphthongized form **cêasi*. No example could be more beautifully conclusive than this—it was originally adduced by Sievers, *Beiträge*, 9,206 — and Bülbring, in writing upon the subject, rightly lays stress upon it. But where a single word is concerned, there cannot be entire confidence. Indeed, a certain doubt takes form and substance when it is considered that the word is found in the requisite form only in one of the *Charters* (Birch, II. 107.2, presumably the third quarter of the 9th century) and in Aelfric's *Colloquy*, 91. It may be noted in passing that the word is quoted by both Sievers and Bülbring as *ciese* (unstarred); where this form is recorded is not apparent—the recorded forms are Kentish *cêse*, *cêse*, and in pure West Saxon *cÿse*. All this however is by way of suggestion. The only three possibilities which would destroy the value of the word as evidence are: (a) that the word might have umlauted to *ê* in West Saxon, in which case it could have been diphthongized in common with the other words after umlaut; (b) that it in some way had a short vowel before *i*-umlaut; or (c) that the form with *y* was Kentish with *y* for *ê*, hence that the true West Saxon form might have been **cêase*. No one of these suppositions, except the first, recommends itself as even remotely possible.

4. The fourth point has reference to the fact that palatal diphthongization preceded *u-o* umlaut. Bülbring (*Anglia Beiblatt*, 11,94) in citing this as a proof must certainly have intended merely to strengthen his argument by general probability. He himself sets the *i*-umlaut in the close

of the 6th and beginning of the 7th century. The *u-o* umlaut was in its inception at the beginning of the 8th. The advocate for diphthongization subsequent to *i*-umlaut would merely refer it to the period between the two affections. It is also to be remembered that the single dialect in question is the West Saxon, and the period at which *u-o* umlaut took place in this dialect is quite in doubt. The *u-o* umlaut of *e* (*a* naturally does not come into consideration) may have occurred late in the 8th century. And the question in regard to forms like *giofol*, *giotan*, etc., with variants, *geotan*, etc., referred to above, may perfectly as well have been due to concurrence of the two affections as to later change of *io* to *eo*.

On this showing, the argument for diphthongization anterior to *i*-umlaut reduces itself to the single, and so far as present knowledge permits judgment, the irrefragible evidence of **cīese*, *cȳse*. An item of additional evidence, possibly, is the apparently neat conformity of the group of unumlauted forms with *ea* and the umlauted forms with *ie*. Both groups are remarkable for the consistency with which the affections are carried through. Had the umlaut forms been diphthongized at the same time as *e* (which would presumably have been the case, if the diphthongization occurred after umlaut), variation of diphthongized and undiphthongized forms might have been expected as in the case of *e*.

Though precedence of diphthongization to umlaut must be accepted, it is of interest to consider the results if the evidence of *cȳse* were proved false, and the diphthongization could hypothetically be set after the umlaut. In this case the difficulty in respect to the date of the *i*-umlaut would be removed, as regards the completeness with which the diphthongization of *æ* must be supposed to have been carried through in the brief period before the umlaut. The development of the changes in detail would

offer no difficulties. Some such order and chronology as the following would be possible: (1) diphthongization of *æ* toward the middle of the 8th century; (2) of *ê* (from West Germanic *ā*), of original *e*, and of *e* from *æ* by umlaut, towards the close of the 8th century; and (3) of *æ*, *ê*, *e*, from *a*, pre-nasal *a*, *ā*, *o*, *ō*, by umlaut, after *h*, at approximately the same time. Judging from analogy, words having secondary vowels from *a*, *ā*, *o*, *ō*, after *c*, *g*, would have diphthongized during the 9th century, but by this time the affection, already on the wane at the time of the diphthongization of *e*, would have ceased.

One special point in favor of the hypothesis of post-umlaut diphthongization is the fact that it brings together the original diphthongization and the diphthongization of secondary palatal vowels after *sc*. Since the latter must in any case be dated about the middle or latter part of the 8th century on the evidence of *sciendan*, *scyndan*, the difference in time between the two diphthongizations, according to the current view, offers a certain difficulty, especially if a waning of the influence is assumed at the time *e* was diphthongized. This is, to be sure, met by taking into account the special influence of *s* in the combination *sc*, giving it the necessary quality to produce diphthongization, which the *c* and the *g* before secondary palatal vowel did not attain. But the relation it is possible to assume on the hypothesis of post-umlaut diphthongization is intrinsically more probable, for the diphthongization of *æ* and the diphthongization of secondary palatal vowels would then have taken place at approximately equal intervals after the change of *a* to *æ* and after *i*-umlaut respectively. The current view must stand, however. Whatever incidental merits the hypothesis of post-laut diphthongization may seem to possess, it remains purely speculative and of no force, so long as the testimony of *cȳse* is not proved false.

A brief statement of the possible development of West Saxon diphthongization is as follows:

1. Diphthongization of *æ* took place before *i*-umlaut and was probably completed just before its inception. The affection, judging from the record, was carried through consistently, the only exceptions, definitely recognizable, being forms with *sk* which preserved *sk* by influence of related forms, its retention being attested by the later development of such as underwent umlaut.

2. Diphthongization of *ê* and of *e* followed, at a period in part probably coincident with that of *i*-umlaut, and probably at a time when the affection was on the wane, as variants without diphthongization occur in both groups, and are in evidence in the record.

3. The *ea* from *æ* by diphthongization was unlauted to *ie*. The forms with *sk* (see 1) persisted, until *sk* itself began to yield under influence of the *s*.

4. Secondary *æ*, *e*, did not possess the power in themselves to palatalize a preceding guttural. In the case of *sc*, diphthongization of secondary palatal vowels was produced, owing to influence of the *s*, and those forms also were diphthongized which had retained *sk* by influence of related forms. In both cases, variants without diphthongization remained by a development in the *patois* of *sc̃*, beside *sk̃*, which united with the palatal vowel following, precluding diphthongization. Certain of these became the preferred forms in the literary dialect, for example *sceppan* and *scen-can*, while *scendan* is almost as common as *sciendan*. On the testimony of *sciendan*, this change is to be placed after *circa* 725, when *æ* (or *æ*) became *e*. It may be referred to the close of the 8th century.

5. The influence of *s* upon *k* (*ê*) in the combination *sk*, discerned in change 4, ultimately affected the *sk* standing before guttural vowels. This passed from the stage *sχ* to *sz*, the guttural vowels inhibiting transition of *χ* to the

palatal spirant. This change may be referred to the first part of the 9th century. It resulted ultimately in the insertion of a glide before the vowels, *a*, *o*, *u*, which were affected in succession, the progress of the affection being discernible in the texts from Aelfred to the *Gospels*. The diphthong is a true diphthong, a fact attested by change of *u* to *eo*. The manner of the use of the *e* also attests this. It appears with increasing frequency in the successive texts and before the several vowels in proper order. This indicates increased use of an actual speech sound. The fact that *scea* stands beside *sca* and *sceo* beside *sco* in the same words does not mean that *sç* and *sê* were used side by side in pronunciation, and it is not possible that the scribe would use a somewhat artificial orthographic expedient at one time and not at another—while he might well at one time indicate a glide and at another leave it unmarked.

Consideration may now be given to the forms with original *j*.

i: in the proper nouns *Iesuslause* (p. 182); *Ieremias*; *munt Iof*, *Iofeses*, *Iobeses*; *Iudeas*, *Iudan*, etc.; also in *iū* (pp. 74, 182). *io*; *iung* (p. 74), *iong*, *iungan* (p. 182); *iugup* (p. 74), *iugupe* (p. 182).

ge, *gi*: *geonre* (p. 55); *geond* (pp. 56, 57), *giend*, *gind*, *begeondan*, *begiondan*; *gît* (p. 56), *gîtt*, *giêt* (p. 56); *giû* (p. 74), *giô*; *geogop* (p. 74), *giogup* (-) (pp. 74, 75, 183), *giugup* (-) (pp. 74, 183); *geong* (-) (pp. 74, 183), *giong* (-), *giung* (-), *geongrena* (p. 183), *giongr* (-) (pp. 78, 183), *gingra* (p. 78), *gingest* (p. 78); *Geoweorpa* (pp. 75, 182); *giocpa* (pp. 78, 183), *gicpa* (p. 78), *giecpa*; *geômorlic* (pp. 83, 183), *geômriende* (p. 83); *gêar* (-) (pp. 84, 85), 'gêar (-)', *gêr* (-) (p. 85), 'gêr'; *geoc* (p. 183), *gioke*; *Gesaphat* (p. 182); *Giethro*, *Githro*.

g: *ge-ge* (p. 182); *gê* (pron.) (II, p. 105).

These forms have for the most part been already discussed. *Io* and *iongum* may be noted as having *i*, but

with original *u* changed to *o*, and may be added to the forms, hitherto noted, which preclude supposing that the spelling with *i* indicates the absence of a diphthong. The foreign name *Giethro* might seem at first sight evidence that *i* was used simply to mark the value of the *g*, but it is in fact evidence of precisely the contrary fact as the variant *Githro* shows. The name *Iethro* was read *jiethro*, and spelled *Giethro* and *Githro*. *Iosaphat* was read *jeosaphat*, and written *Gesaphat*, perhaps negligently, perhaps owing simply to confusion in the case of a foreign word.

Giêt beside *gît* has always offered difficulty. The normal development would have been simply to **jæt*, but the pronunciation of this in the *je* or *ji* position is practically impossible. The simplest supposition is that the word assumed the form **jêt*, and then with widening of the mouth and retraction of the lips assumed the form *giêt*, the *j* approximating in that position to *g*. Here, as before *u*, the articulation of the *j* would vary, and when pronounced in the *ji* position, *gît* would result from *giêt* by merging of *e* and *i*.

This word serves to illustrate how different the true *j* is from the *g*. If it had been like the *g*, the original **jæt* would have developed to **gêat*, or by monophthongization, **gêt*. Neither form occurs, and development of **giêt*, *gît*, from the latter is of course impossible.

The fact of this difference may be kept in mind in considering the word *gêar*. It is usually referred to an original **jêar*, but this offers difficulty, as properly *j* should not diphthongize a palatal vowel, and the place of articulation of the vowel in question is not such as to render introduction of a glide probable, when the *j* is pronounced with the mouth widened. Further, the modern English *yore* has to be kept in mind as presupposing a rising diphthong. It seems necessary, accordingly, to assume an original **jâr* through influence of the plural forms (see the

discussion above, p. 81). The development to **geār* is then regular, and this form, through influence of the common falling diphthong *ea*, *êa*, became *gêar*. *Geāra*, functioning as an adverb, became separated from its primary and retained its rising diphthong, whence modern *yore*.

Geong, *geogunþ*, *geoc*, show the change of *iu* to *eo* due to articulation with opening of the mouth and retraction of the lips. The diphthong remains a rising diphthong. *Geoc* became the preferred form, whence modern *yoke*. *Geong* may or may not have become the preferred form, as Middle English *yung* may have developed from *yong*, or might have developed from *giung* retained beside *geong*.

The date of the diphthongization caused by *j*, it is difficult or impossible to determine. It may or may not have taken place, in West Saxon, at the same time as that after *ġ*. It is quite possible that it took place earlier and at approximately the same time in all dialects, as the affection is identical in character in all.

VI.

CONCLUSION.

It is not necessary, in conclusion, to give a detailed summary of the points discussed, but merely to emphasize those of special importance. Special studies of this nature must necessarily contain, as regards detail at least, much that is merely tentative and simply offered for criticism, a review of which is hardly possible without reopening argument. But the view taken of general conditions may be summarized in such a way as to indicate the leading points of the argument, to unify the results reached in regard to the separate dialects, and to emphasize points of speculative importance.

The first point of importance is the necessity of separating absolutely the Anglian dialects, and it is safe probably to add the Kentish, from the West Saxon. This was not clearly recognized at the time the study was first undertaken; it is pretty generally recognized to-day, but by no means with so complete an understanding of its bearings and results as is probably justified. A recognition of this fact serves at once to bring the several dialects into consistent relation. Early and general diphthongization was exclusively a West Saxon character. The supposition of a general tendency is contradicted by the Mercian in which there is no diphthongization, while in Northumbrian it would involve supposing an affection of extremely limited range, affecting only *æ*, and only sporadically, followed in the 10th century by a later sporadic affection. There is no evidence of a general tendency. The cases of pure diphthongization in Northumbrian are all to be referred to a late, partial, and sporadic affection, evidenced to be such by the nature of the record in the 10th century texts. In Mercian, any possible tendency toward a similar late diph-

thongization was precluded by the fact that its *æ* was heightened to *e*, and was therefore immune to the affection, just as *e* was in Northumbrian.

The diphthongization of *æ* in West Saxon is to be referred to the period before *i*-umlaut, but this conclusion, it is to be remembered, depends upon the single testimony of the word *cýse*, and may have to be given up if some other explanation is offered for it than the apparent one. Certain special diphthongizations followed. These involve the second point of general importance, the special development of *sk*.

The combination *sk* was especially susceptible to palatalization through the influence of the *s*. Owing to this influence, it tended to palatalize independently of the following vowel. Also, it might develop either to *sk̅* or to the unitary sound *sč* (pronounced approximately like the *sh* in *shoe*); the latter might develop by variation before palatal vowels, and it necessarily developed before guttural vowels, which precluded development to *sk̅*. The sound *sč*, being purely palatal, and a direct development from *sχ*, did not, when developed before palatals, cause diphthongization. The results of this special diphthongization of *sk̅* are seen in West Saxon and in Northumbrian. In the West Saxon, it evidenced itself in the diphthongization of secondary palatal vowels, and of such variant forms with primary palatals as had retained *sk̅* by influence of related forms. Owing to the development of *sč* beside *sk̅* in words having palatal vowels, variants without diphthongization appear beside the normal forms with diphthongization. This affection took place after 725, presumably in the second half of the century. In Northumbrian it took place at the same time, and is the starting-point of such diphthongization as there was. In northern Northumbrian, it caused the diphthongization of primary *æ*, and exceptionally of secondary *æ̅*, extending to *e*, *ē* in

the exceptional cases *scīp* and *sci(e)ppend*; variant forms also appeared without diphthongization, owing to development of *sċ*. In southern Northumbrian, primary *æ*, was diphthongized, but secondary *æ*, *ê* escaped the affection owing to previous extension of *sċ*. In Mercian, diphthongization by *sk* is prevented by the change of *æ* to *e*, as in the case of *k* and *g*.

Sk before guttural vowels developed to *sċ*, as noted, in consequence of the influence of the *s*, the change being part of the same change as enabled the *sc* before secondary palatal vowels to diphthongize those vowels. This change before guttural vowels occurred in the beginning of the 9th century, and towards the middle or close of the century the palatal *sċ* which resulted caused the introduction of a glide before the guttural vowels, producing rising diphthongs. The progress of the affection may be traced in the Aelfredian texts. In Northumbrian, the extension of the affection to *a* and *o* is indicated by frequent occurrence of the diphthong in the record. In Mercian, in the single text sufficiently late to exhibit it, *Rushworth*¹, it does not appear, owing possibly to influence of Scandinavian *sk*. Emphasis may be laid in connexion with this sound upon the importance of recognizing that the *e* inserted after *sċ* was a true glide and not merely an indication of palatal quality of the *sċ*. Rehm (*Die Palatalisierung der Gruppe* p. 53), after recording the cases with *sc* in typical texts, states without demonstration that his lists prove the *e* after *sc* only a palatal glide or indicator of palatal quality, not a true diphthongal element. The lists on the contrary seem to prove exactly the reverse. The continuous increase in the use of the *e* in the successive West Saxon texts and before the various vowels in the order to be theoretically expected, indicates increased use of a new speech element. And the change of *u* to *eo* can only be explained on the supposition of an actual diphthong.

A similar question rises in the case of the *j*. Bülbring, as noted above, considers that in some cases the *e* or *i* following may be a true diphthongal glide, in others a mere indicator of quality. The endeavor has been made to show that it invariably represents a diphthongal element. In regard to *j* in general, it has been pointed out that the development after *j* is not to be considered on a parity with that of *ǣ* in accordance with the prevailing view. *J* was a palatal *per se*, and not a developed palatal. It did not therefore cause diphthongization of palatal vowels, but caused introduction of a glide before guttural vowels. The view was also advanced that in the case of both *j* and *sc*, there were two different modes of articulation. The prevailing mode was with the mouth narrowed, the sounds approximating to *y*, *sh*, in *you*, *shoe*. They could also be pronounced with the mouth opened and lips retracted owing to the influence of a back consonant following the vowel, or a guttural vowel in the next syllable. To this second mode of articulation, the change of *u* (*iu*) to *eo* is due, and the *u* and *eo* remain beside each other in the record even in late texts, owing to the use of both modes of articulation. The affection caused by *j* was general West Saxon; it appears also in Mercian when other palatal diphthongization does not take place. The affection is similar in all. It is not possible to determine its date, but it was probably early; it is not necessary to assume that it occurred at the same time in all the dialects, though this probably was the case. It appears in all the dialects to have preceded *i*-umlaut.

A point of subordinate importance but of some special interest in connexion with *j* is the explanation offered of the spelling *i* as representing not *j* simply, but consonant *plus* diphthongal element.

It may be added, in closing, that the study of palatal diphthongization will be best advanced, in the direction

of confirmation or rejection of the solutions offered for its various difficult and perplexing problems, by a detailed study of dialectal conditions in Middle English. This is already assured—a special reason why the writer, for one, looks forward with anticipation to the conclusion of Morsbach's *Mittelenglische Grammatik*.

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[The forms included are those having initial guttural and palatal consonants. The classification is by stem-syllables without reference to prefixes.]

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cæf, see *ceaf*

cæster, see *ceaster*

cæfertun, see *ceafortun*

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